



17 September 2018 edition

## Introduction

This Environmental Scan was prepared for use by all Local Health Integration Networks (LHINs) as an input into each LHIN's 2019-2022 Integrated Health Service Plan (IHSP5) and subsequent planning activities. This Scan provides an overview of a number of key characteristics of local populations, services, utilization, and health impacts.

The document has not been designed for the general reader, but rather for LHINs and their planning partners. It presents updated characteristics of health and healthcare in each LHIN as well as a comparison to Ontario overall and to other LHINs.

The development of each LHIN's Integrated Health Service Plan requires more knowledge of and insight into the local environment than can be provided by a Scan of this nature. The Scan was developed to help support local discussion to further develop local priorities and activities, as well as to provide updated information on the measureable impact of targeted change.

The information presented in this Scan was proposed by the LHINs collectively and the data prepared by representatives of the Health Analytics Branch of the Ontario Ministry of Health and Long-Term Care, the Access to Care division of Cancer Care Ontario, and Health Shared Services Ontario. Interpretation of the data provided was completed by representatives of the 14 LHINs as a collaborative pan-LHIN project. Individual LHIN representatives who worked on each section are identified in the introductory table to the sections in the Ontario chapter.

Many people contributed to the development of this document. The co-chairs express their particular thanks to the representatives of the ministry and the LHINs who contributed to the creation of this Scan:

Nam Bains	Ministry of Health and Long Term Care
Stephanie Loomer	
Heather Shuman	
Barbara Bunker	Cancer Care Ontario
Kirk Owen	
Cheryl Bostock	Health Shared Services Ontario
Jay Callowhill	

Co-chairs:

Simone Falconer  
Health Shared Services Ontario

Elizabeth Rogers Salvaterra  
LHIN Renewal Branch

## Planning Obligations for LHINs

Since their inception, LHINs have been responsible to plan, fund, and integrate the local health system. The Integrated Health Service Plan is the multi-year plan that a LHIN is required by the Local Health System Integration Act (LHSIA) to develop and publish. It represents the articulation of the LHIN's vision, priorities, and strategic directions.

Each LHIN's IHSP must include the following:

- vision, priorities and strategic directions for the local health system and set out strategies to integrate the local health system
- strategic directions and plans for the geographic sub-regions

The IHSP must be consistent with the provincial strategic plan, the funding that the network receives and the requirements of any regulations under LHSIA. The plan is developed in consultation with

- each medical officer of health for any public health unit completely or partially within the borders of the LHIN
- the residents of the LHIN
- Health Service Providers and other entities that provide services in or for the local health system
- the Aboriginal and First Nations health planning entity for the LHIN
- the French language health planning entity for the LHIN

In December of 2016, the Ontario Legislature approved changes to the health system through amendments to various existing legislation, including substantial changes to the *Local Health System Integration Act, 2006* (LHSIA), and the repeal of the *Community Care Access Corporations Act*. These changes have an impact on LHIN planning obligations, and create a corresponding need for additional information as an input into LHIN planning.

### Sub-Regions

Revisions to the *Local Health System Integration Act, 2006* include the following obligations for LHINs:

*14.1 (1) Each local health system integration network shall establish geographic sub-regions in its local health system for the purposes of planning, funding and integrating services within those geographic sub-regions. 2016, c. 30, s. 13.*

*(2.1) The Integrated Health Service Plan (IHSP) shall include strategic directions and plans for the geographic sub-regions of a local health system in order to achieve the purposes of this Act. 2016, c. 30, s. 14 (1).*

The definition developed for sub-regions is: *One of the geographic sub-divisions of the LHINs endorsed by the Ministry of Health and Long-Term Care for the purposes of population needs-based planning, funding and integrating services, and the organization of LHIN-delivered services.*

Where available, information in the Environmental Scan has been provided at the sub-region level based on the 76 LHIN sub-regions endorsed by the ministry in January 2017. To support a population health approach to local planning and service delivery across the continuum of health care, sub-regional information is provided by sub-region of patient residence. An exception to this rule is in the Long-Term Care section of each chapter; because residents of a Long-Term Care home are also residents of the sub-region in which the Long-Term Care home is located, information in this section is provided both by the sub-region of patient residence and by sub-region of facility.

Information about sub-regions has been structured to allow for comparisons among them, and areas where residents of a particular sub-region have a characteristic or experience with the health system



that is significantly different from Ontarians as a whole are highlighted both in the Highlights section of each chapter and in the subject-focused sections. Unless otherwise noted, sub-region comparisons in the Ontario chapter are made among all 76 sub-regions across the province, and sub-region comparisons in each LHIN chapter are among only the sub-regions within that LHIN.

#### Population Health

LHIN objects set out in LHSIA now include the following:

- (e.1) to promote health equity, including equitable health outcomes, to reduce or eliminate health disparities and inequities, to recognize the impact of social determinants of health, and to respect the diversity of communities and the requirements of the French Language Services Act in the planning, design, delivery and evaluation of services;*
- (e.2) to participate in the development and implementation of health promotion strategies in cooperation with primary health care services, public health services and community-based services to support population health improvement and outcomes*

Each chapter of the Environmental Scan begins with a section on Population Characteristics, which describe information about demographics, social determinants of health, behaviours and health status of LHIN and sub-region populations.

#### Primary Care planning

LHIN objects set out in LHSIA now include the following:

- (b) to identify and plan for the health service needs of the local health system, including needs regarding physician resources, in accordance with provincial plans and priorities and to make recommendations to the Minister about that system, including capital funding needs for it;*

Each chapter of the Environmental Scan includes sections on Health Human Resources and on administrative and self-reported primary care utilization.

#### LHIN-Delivered Services

LHSIA now includes a new Part V.1 to address the transfer of Community Care Access Corporations (CCACs) to LHINs, and LHIN objects now include:

- (m.1) to provide health and related social services and supplies and equipment for the care of persons in home, community and other settings and to provide goods and services to assist caregivers in the provision of care for such persons;*
- (m.2) to manage the placement of persons into long-term care homes, supportive housing programs, chronic care and rehabilitation beds in hospitals, and other programs and places where community services are provided under the Home Care and Community Services Act, 1994;*

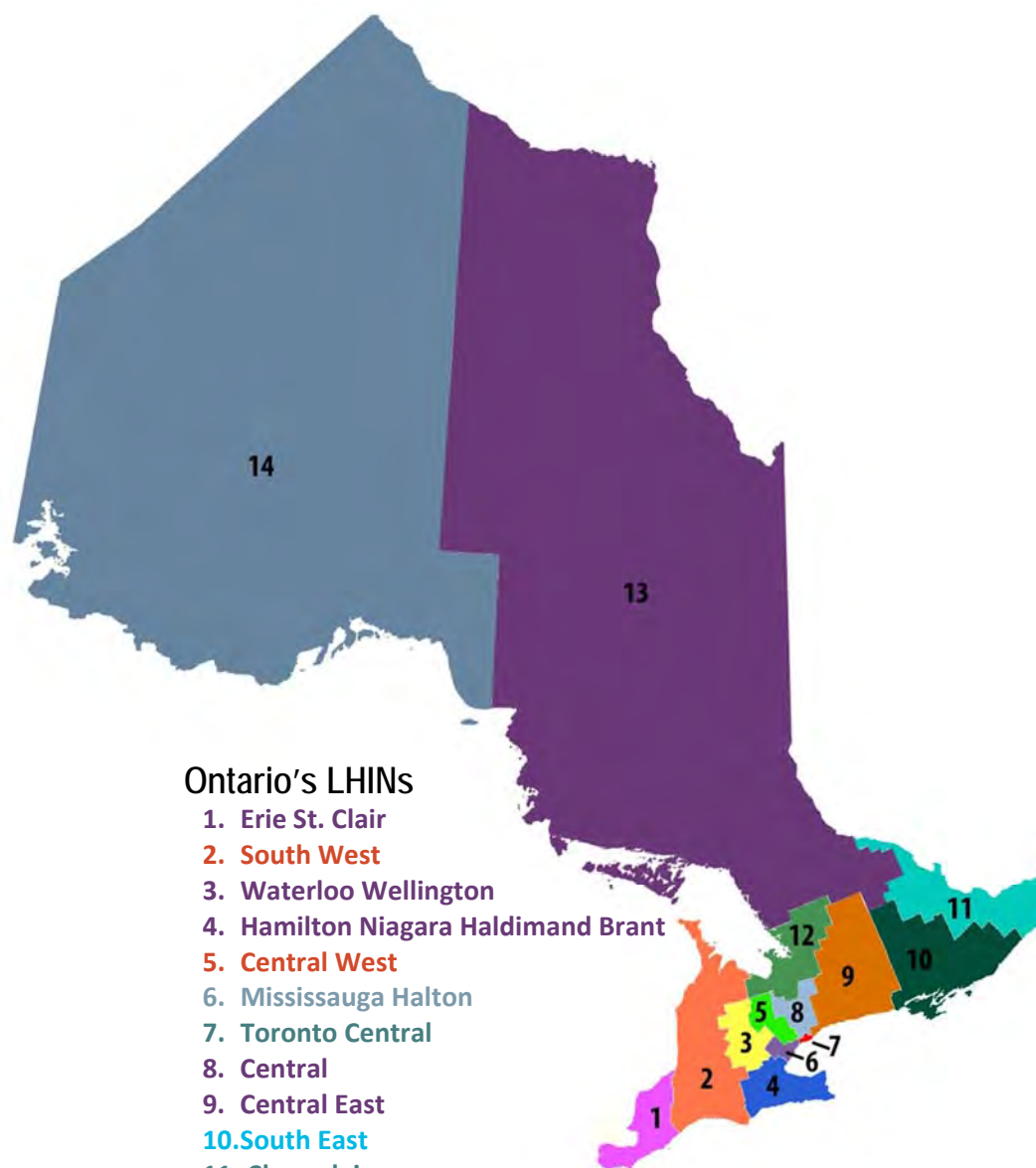
Although CCACs no longer exist, the Home Care sections of this Environmental Scan include information from a period that spans delivery of services by CCACs and by LHINs, and many of the data sources used still include the term “CCAC.” Services delivered before the dissolution of the CCACs are described as having been delivered by CCACs, and services delivered after the dissolution of the CCACs are described as having been delivered by LHINs. Unless otherwise noted, the services themselves are the same, irrespective of the term used to describe the entity providing the service.

#### Health Shared Services Ontario

Regulation 456/16 under LHSIA created *Health Shared Services Ontario (HSSO)*, an amalgamation of three previously existing entities that provided centralized support and coordination to LHINs (*LHIN Collaborative* and *LHIN Shared Services Office*) and CCACs (*Ontario Association of CCACs*). In its role as a coordinator of pan-LHIN projects, HSSO led the development of this Environmental Scan. Additionally, as

the holder of the Client Health and Related Information System (CHRIS), HSSO was the data provider for all information in the Home Care section of each chapter of the scan.

# Ontario



## Ontario's LHINs

1. Erie St. Clair
2. South West
3. Waterloo Wellington
4. Hamilton Niagara Haldimand Brant
5. Central West
6. Mississauga Halton
7. Toronto Central
8. Central
9. Central East
10. South East
11. Champlain
12. North Simcoe Muskoka
13. North East
14. North West

## Contents

<b>Ontario</b>	<b>1</b>
<b>Population Characteristics</b>	<b>1</b>
Population Estimates .....	1
2016 Census Profile .....	5
Births and Mortality .....	14
General Health, Risk Factors, and Prevention .....	26
Chronic Conditions.....	31
<b>Human Resources</b>	<b>34</b>
<b>Primary Care</b>	<b>38</b>
Primary Care Enrolment .....	39
Selected Measures from the Health Care Experience Survey.....	50
<b>Community Care</b>	<b>56</b>
<b>Mental Health Services</b>	<b>59</b>
Wait Time for Community Services .....	60
Mental Health and Substance Abuse Emergency Department Visits .....	63
Utilization of Adult Designated Mental Health Beds (by LHIN of hospital).....	67
<b>Surgery &amp; Diagnostic Imaging</b>	<b>75</b>
Day Surgery and Cardiac Catheterization Utilization .....	75
Surgical & Diagnostic Imaging Wait Times .....	78
<b>Oncology and Dialysis</b>	<b>97</b>
<b>Home Care</b>	<b>101</b>
Home Care Referrals.....	101
Home Care Services .....	104
<b>Palliative Care</b>	<b>108</b>
<b>Emergency Department</b>	<b>117</b>
Emergency Department Utilization .....	117
Emergency Department Performance .....	122
<b>Acute Care</b>	<b>126</b>
Acute Care Utilization—LHIN of Patient .....	127
Acute Care Utilization – LHIN of Hospital.....	131
Acute Care Inflow/Outflow .....	133
<b>Post-Acute Care</b>	<b>135</b>
Inpatient Rehabilitation Utilization.....	135
Complex Continuing Care Utilization.....	139
<b>Alternate Level of Care</b>	<b>143</b>
Closed ALC Cases .....	144
Open ALC Cases .....	145
Hospital Processes and Capacity .....	146
<b>Long-Term Care</b>	<b>150</b>

# Population Characteristics

## Population Estimates

This section and the accompanying workbook contain population estimates for LHINs and LHIN sub-regions for 2011-2016, as well as population projections for LHINs for 2016-2026. These are post-censal estimates that correct for undercoverage in the 2011 Census, and also take into account births, deaths and components of international and interprovincial migration.

Detailed analysis is provided in the accompanying Excel workbooks:

1. **Ministry of Finance intercensal estimates (2006-2010) for LHINs**
2. **Sub-region population estimates\_2014\_2016 HAB(2018-05-01)DON**
3. **Ministry of Finance estimates (2011-2016) and projections (2017) for LHINs**
4. **Population projections (2018 IHSP)**

Sub-region population estimates: Based on 2014 updated post-censal and 2015, 2016 preliminary post-censal census subdivision (CSD) estimates (calendar year). The method for creating sub-region population estimates is consistent with Ontario Ministry of Finance LHIN estimates. Sub-region estimates are calculated by Health Analytics and Insights Branch (HAIB).

2016 Census population for LHINs: As calculated by HAIB, please see 2016 Census Profile\_LHINs and Sub-regions (2018-03-08)\_HAB Final.xlsx for methods and data sources.

2016 estimates and 2021 and 2026 projections for LHINs: 2011 Census-based Ministry of Finance Population Estimates (2011-2016) and Projections (2017-2041) for Local Health Integration Networks, Ministry of Finance, June 2017.

Note to Users: The projections are consistent with the Spring 2017 Ministry of Finance 2011 Census-based Census Division projections (2016 estimate base).

**Prepared August 2018**

**Excel workbooks provided by:** *Health Analytics & Insights Branch, Ministry of Health and Long Term Care*  
**Narrative prepared by:** *Elizabeth Salvaterra and Maria Sanchez, Central West LHIN*

Population forecasted growth information is critical for health system planning. The Ministry of Finance provides population growth estimates for the following geographies: LHIN, Public Health Units and Counties. In the past, projections for smaller geographic boundaries were made by extrapolating the proportion it comprised of the larger geography (e.g. county) and scaling down the projections accordingly. This is not a true forecast of that geographic area, as it is based solely on the composition of the larger geography and does not take into account actual growth. There are no plans to develop a methodology to create population projection models for sub-regions. LHINs are advised against using non-Ministry of Finance projections as they may not align with official data and will not be endorsed. Further, using data as a proxy may result in nuances and caveats to reporting being lost.

### Population Estimates from Ministry of Finance

	Ontario	Range across the 14 LHINs	Range across the 76 sub-regions
2011 Census, total population	12,851,821	222,087 - 1,703,681	
2016 Census, total population	13,448,494	228,339 - 1,812,964	7,745 - 536,917
Population growth between 2011 and 2016 (based on Census)	4.6%	-0.2 - +9.6%	-3.6 – +30.5%
Estimated population, 2011	13,263,544	237,071 – 1,758,875	N/A
<b>Estimated population, 2016</b>	<b>13,982,984</b>	<b>235,148 - 1,893,948</b>	<b>7,602 - 561,022</b>
% population age 65+	16.38%	12.28% – 21.60%	6.60% - 26.27%
% population age 75+	7.17%	4.82% - 9.23%	2.29% - 11.24%
Projected population, 2021	14,980,422	236,711 – 2,069,378	N/A
Projected population, 2026	15,822,463	236,978 – 2,228,887	N/A
<b>% population change estimated 2011-2016</b>	<b>5.4%</b>	<b>-1.4% - +10.2%</b>	<b>N/A</b>
% changes (based on changes from the 2016 estimates)			
% population change forecasted 2016-2021	7.1%	0.1% 0 11.8%	N/A
% population change forecasted 2016-2026	13.2%	-.03% - +20.3%	N/A

- As of 2016, the population of Ontario was estimated to be 13,982,984, a 5.4% increase from 2011. By LHIN, the population ranged from 235,148 in **North West** to 1,893,948 in **Central. Mississauga Halton, Toronto Central**, and **Central West** witnessed the highest level of growth from 2011 to 2016, at 10.2%, 8.0% and 7.7% respectively. Two LHINs experienced negative growth--**North East** (-1.4%) and **North West** (0.8%), while **South East** witnessed the lowest level of positive growth of 0.8%.
  - For the province, the percentage of the population ages 65 and over was 16%. **Central West** and **South East** had the lowest percentage at 12% and highest percentage at 22% respectively. Of the population ages 75 and over, **Central West** and **South East** had the lowest percentage at 5% and highest percentage at 9% respectively.
- Ontario's population is projected to increase by 7.1% by 2021 and by 13.2% by 2026. The highest percentage growth is projected in the **Toronto Central** (20.3%) and **Central West** (20.0%) LHINs, while the **North West** LHIN is projected to have the smallest positive growth (0.8%), and the **North East** LHIN is expected to have a decrease in population (-0.3%).

### Total Estimated Population by Sub-Region

Lowest 8			Highest 8		
SR	#	% of Ontario	SR	#	% of Ontario
James and Hudson Bay Coasts (NE)	7,602	0.05%	Niagara (HNHB)	389,508	2.79%
District of Thunder Bay (NW)	17,823	0.13%	North York Central (C)	399,930	2.86%
District of Rainy River (NW)	19,692	0.14%	Kitchener-Waterloo- Wilmot- Wellesley- Woolwich (WW)	402,042	2.88%
Northern (NW)	21,582	0.15%	Scarborough South (CE)	447,806	3.20%
Rural Hastings (SE)	35,057	0.25%	Central Ottawa (Ch)	461,087	3.30%
Bolton-Caledon (CW)	42,329	0.30%	London Middlesex (SW)	475,881	3.40%
Chatham City Centre (ESC)	43,061	0.31%	Western York Region (C)	519,746	3.72%
District of Kenora (NW)	46,205	0.33%	Hamilton (HNHB)	561,022	4.01%

- All of the largest sub-regions have larger populations than that of the **North West** LHIN (235, 148).
- Both **Hamilton** and **Western York Region** sub-regions have larger populations than the **North Simcoe Muskoka** (486,453) and **South East** (498,004) LHINs.

### Estimated % Seniors (65+) by Sub-Region

Lowest 8			Highest 8		
SR	%	#	SR	%	#
Northern (NW)	6.60%	1,424	Quinte (SE)	23.10%	30,456
James and Hudson Bay Coasts (NE)	7.05%	536	Grey Bruce (SW)	23.64%	35,490
Milton (MH)	8.69%	8,203	Rural Hastings (SE)	24.01%	8,416
North West Mississauga (MH)	9.61%	27,904	Lanark, Leeds & Grenville (SE)	24.23%	28,819
Brampton (CW)	10.93%	36,122	Muskoka (NSM)	24.39%	15,246
Bramalea (CW)	11.13%	30,249	Northumberland County (CE)	24.96%	18,825
Durham West (CE)	11.94%	42,012	South Georgian Bay (NSM)	26.09%	16,499
Western Ottawa (Ch)	12.82%	38,135	Haliburton County and City of Kawartha Lakes (CE)	26.27%	24,850

- The LHINs with the highest proportion of seniors (65+) were **South East** (21.60%) and **North East** (20.36%).
- The LHINs with the lowest proportion of seniors (65+) were **Central West** (12.28%) and **Mississauga Halton** (13.53%).

### Estimated % Residents 75+ by Sub-Region

Lowest 8			Highest 8		
SR	%	#	SR	%	#
Northern (NW)	2.29%	495	Lanark, Leeds & Grenville (SE)	10.03%	11,937
James and Hudson Bay Coasts (NE)	2.44%	186	Algoma (NE)	10.17%	10,384
Milton (MH)	3.20%	3,020	Quinte (SE)	10.27%	13,534
North West Mississauga (MH)	3.70%	10,744	Grey Bruce (SW)	10.30%	15,456
Bramalea (CW)	3.77%	10,252	South Georgian Bay (NSM)	10.63%	6,718
Brampton (CW)	4.22%	13,937	Muskoka (NSM)	10.86%	6,790
Eastern Ottawa (Ch)	4.47%	9,603	Northumberland County (CE)	11.00%	8,296
Durham West (CE)	4.71%	16,581	Haliburton County and City of Kawartha Lakes (CE)	11.24%	10,635



- The LHINs with the highest proportion of residents aged 75 and older were **South East** (9.23%) and **North East** (8.86%).
- The LHINs with the lowest proportion of residents aged 75 and older were **Central West** (4.82%) and **Mississauga Halton** (5.74%).

## 2016 Census Profile

### Notes:

This section and the accompanying workbook contain analysis of selected measures from the 2016 Census. Detailed analysis is provided in the accompanying Excel workbooks:

### 2016 Census Profile\_LHINs and Sub-regions (2018-03-08)\_HAB Final

This spreadsheet provides a comprehensive statistical profile of Ontario's 14 Local Health Integration Networks (LHINs) and 76 LHIN sub-regions. Analysis is presented for over 50 measures related to population demographics, and social and economic measures using data from the 2016 Census of Canada in the following categories:

- Population by age and sex
- Urban/rural population
- Income
- Language, Francophone.
- Aboriginal identity
- Education
- Families
- Housing
- Immigration
- Urban/rural gradient
- 2006-2016 LHIN level trend

Data from Statistics Canada are used as-is. Special tabulations were prepared for HAB by Statistics Canada. Other than these Special Tabulations, all measures included in this profile were calculated by HAB.

### Data sources

Census: Statistics Canada. Canada, Provinces, Territories, Census Divisions, Census Subdivisions and Dissemination Areas tables. Census Profile. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001.

Land area and population density: 2016 Census Geographic Attribute File. Statistics Canada.

Special Tabulations: Statistics Canada. 2016 Census. Detailed age and sex; Inclusive Definition of Francophone; Seniors living alone. Prepared for HAB, January 2018.

The excel workbook contains:

#### [Summary Part 2](#)

Provides summary tables and charts for key measures from part 2 of the profile, by LHIN and sub-region area.

#### [LHIN Census Profile](#)

Census profile for LHIN areas, updated with part 2 measures.

#### [Sub-region Census Profile](#)

Census profile for sub-region areas, updated with round 2 measures.

#### [2006 to 2016 trends](#)

Table of selected measures showing data for 2006, 2011 and 2016 at the LHIN level.

#### [Data trend Summary](#)

Provides interactive summary tables and charts to compare selected measures across time (2006; 2011; 2016) for LHINs.

#### [Documentation](#)

Definitions for Census variables, and description of concepts.

### Caveats

The 2016 Census marked the return of the mandatory long-form Census, which reduces the comparability to the previous 2011 National Household Survey (NHS). In 2011, the NHS was distributed, which was a non-mandatory household survey containing similar content to previous long-form Censuses. To compensate for the expected non-response, the NHS was distributed to one in three households, rather than the 20% of households that received the long form in previous years. There have, however, been concerns over non-response bias in the NHS, and Statistics Canada has warned that caution should be used when comparing estimates from the 2011 NHS and the 2016 long-form census, as 'they can differ significantly in methodology, quality and target population'.

Stats Can provides separate denominators for each section of data and rounds values in some sections. Because geographic components are summed, the total denominators for each geographic area may be more or less than the 2016, total population value.

#### **Prepared April-August 2018**

**Excel workbooks provided by:** *Health Analytics Branch, Ministry of Health and Long Term Care*

**Analysis & interpretation prepared by:**

<i>Population &amp; urban-rural gradient</i>	<i>Ozgur Eren, Erie St. Clair LHIN</i>
<i>Census population by household and families</i>	<i>Steve White, South West LHIN</i>
<i>Language</i>	<i>Thusany Puvanendran, Waterloo Wellington LHIN</i>
<i>Income</i>	<i>David Tanner, HNHB LHIN</i>
<i>Immigration &amp; Identity</i>	<i>Maria Sanchez, Central West LHIN</i>
<i>Education</i>	<i>Rod Millard, Mississauga Halton LHIN</i>
<i>Labour force activity</i>	<i>Laera Gattoni, Toronto Central LHIN</i>

#### **Census Demographics**

- The total demographic dependency ratio is the ratio of the combined youth population (0 to 19 years) and senior population (65 or older) to the working-age population (20 to 64 years). It is expressed as the number of "dependents" for every 100 "workers". The provincial dependency ratio was 64.5. Across the province, **South East** had the highest dependency ratio at 72.8 while **Toronto Central** had the lowest dependency ratio at 46.9.
- A total of 9,152,207 people, or 68.1% of Ontario's population lived in large urban communities. Only 1,130,743 people, or 8.4%, lived in rural or small communities adjacent to urban areas.
- For the urban-rural gradient category large urban community, **Toronto Central** ranked highest in the province at 100% (1,232,258). In contrast, neither **North East** nor **North West** had any population in a large urban community. **Mississauga Halton** had no population in rural and small towns.
- For the urban-rural gradient category medium/small population centres, **North East** ranked highest in the province at 52.7% (290,683).
- For the urban-rural gradient category rural or small communities adjacent to urban areas, **South East** LHIN ranked highest in the province at 26.1% (125,718).
- For the urban-rural gradient category rural and small towns, **North West** ranked highest in the province at 40.1% (91,622).
- Ontario's land mass measures 908,699 square kilometres. **North West** had the highest proportion at 44.8% (406,926 km<sup>2</sup>) and **Toronto Central** covered the lowest proportion at less than a tenth of one percent (192 km<sup>2</sup>).
- Ontario's overall population density was 14.8 persons per square kilometre. The highest density LHIN was Toronto Central at 6,412.6 persons per square kilometre and the lowest density LHIN was North West at 0.6 persons per square kilometre (one person per 1.78 km<sup>2</sup>).

#### **Households**

- In 2016, 2,353,970 families with children were living within Ontario. 27.4% of those families were lone parent. By LHIN region, the **North West** LHIN had the highest rate of lone-parent families (34.0%) and the **Mississauga Halton** LHIN had the lowest (22.4%).
- In 2016, 2,113,525 households included one or more family members aged 65 years and over. 23.5% of those individuals were living alone. By LHIN region, the **Toronto Central** LHIN had the highest rate of seniors living alone (33.8%) and the **Central West** LHIN had the lowest (13.8%).

- **Toronto Central** had the highest rate of one person households (39.9%) and **Central West** had the lowest (14.4%).
- By region and household size, **Central West** had the highest rate of 5 or more person households (21.5%) and **Toronto Central** the lowest (5.4%).
- The total number of private households was 5,169,175. 69.7% of those were owner occupied, 30.2% were rented, and 0.7% were band housing.
  - **North Simcoe Muskoka** had the highest rate of households that were owner-occupied (78.4%) with **Toronto Central** having the lowest (46.5%).
- The total number of owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio is 5,106,285. 27.7% of those households spent 30% or more of their income on rent or payments. By LHIN region, **Toronto Central** had the highest rate (36.9%) and **North West** had the lowest (18.3%).
- 6.1% of the private households in Ontario are in need of major repair. The 'major repairs needed' category includes dwellings needing major repairs such as dwellings with defective plumbing or electrical wiring, and dwellings needing structural repairs to walls, floors or ceilings. This does not include desirable remodelling or additions.
  - The **North West** had the highest rate (11.5%) of private households in need of major repair and **Mississauga Halton** and **Central West** had the lowest (4.5%).
- 6.0% of the households in Ontario do not have suitable accommodations (enough bedrooms for the size and composition of the household, as calculated using the National Occupancy Standard).
  - The **Central West** LHIN had the highest rate of unsuitable housing (10.9%) and **North East** had the lowest (2.5%).

## Language

- In 2016, 69.5% of the provincial population reported English and 4.3% identified French as their mother tongue. 2.5% of the population reported no knowledge of either official language.
- By LHIN region, **South East** LHIN had the highest rate of residents who reported English as their mother tongue (91.7%), and **Central** LHIN with the lowest (50.0%).
- By LHIN region, **North East** LHIN had the highest rate of residents who reported French as their mother tongue (22.3%) and **Central West** with the lowest (1.1%). For the proportion of residents who self-identified as Francophone, **North East** LHIN had the highest proportion (22.5%) and **South West** LHIN had the lowest (1.4%).
  - By LHIN region, **Central** LHIN had the highest rate of residents with no knowledge of English or French (5.4%) and **North East** LHIN had the lowest rate (0.2%).
- In the 2016 Census, Statistics Canada applied a new and more inclusive definition of Francophones. Under this new inclusive definition, there were 13,242,160 French speaking residents in Ontario in 2016. More specifically, 616,805 residents of Ontario identified themselves as Francophone, accounting for 4.7% of Ontario's population.
- English was the most common language spoken at home in Ontario (78.0%), followed by English and a non-official language (5.0%), French (2.0%), Mandarin (2.0%) and Cantonese (1.0%).
  - Residents in all 76 sub-regions reported English as the first language spoken in the home.

## Income

- Ontario had approximately 1.9 million people or 14.4% of the population with low income, based on the after-tax low income measure (LIM-AT). The proportion ranged from 11.6% in the **Waterloo Wellington** LHIN to 19.0% in the **Toronto Central** LHIN.

- The proportion of households in the lowest income quintile ranged from 16.4% in the **South East** and **Central West** LHINs to 29.3% in the **Central** LHIN.
- By age, an estimated 165,000 or 19.8% of the children under the age of 6 live in low income households in Ontario, and an estimated 12.0% of seniors or over 253,000 people aged 65 years or older lived in low income households in Ontario.
- In Ontario, 16.0% of households had an after-tax income of \$125,000 or higher. The proportion of households with an after-tax income of \$125,000 or higher ranged from 10.0% in the **South East** LHIN to 23.4% in the **Mississauga Halton** LHIN.
  - The proportion of households in the highest income quintile varied across the province, from 16.5% in the **Waterloo Wellington** LHIN to 25.1% in the **Toronto Central** LHIN.

### Immigration

- In 2016, 29.1% of the Ontario population were immigrants and nearly 3.6% were **recent immigrants**, having arrived in Canada between 2011 and 2016. Of the recent immigrants, the highest proportion came from India (14.7%), followed by China (12.5%) and the Philippines (11.2%).
  - Across the LHINs, the proportion of the population who were recent immigrants in 2011 ranged from 0.4% in the **North East** LHIN to 6.5% in the **Central** LHIN.
- From 1980 to 2016, 48.3% of immigrants were admitted as economic immigrants, 33.3% were sponsored by family and 17.1% were admitted as refugees.
- By LHIN, **Mississauga Halton** had the highest proportion of economic immigrants (57.7%) and the **Erie St. Clair** LHIN had the lowest proportion (34.3%).
  - The **Central West** LHIN had the highest proportion of immigrants sponsored by family (47.9%) and the **Mississauga Halton** LHIN had the lowest proportion (27.8%).
  - The **Erie St. Clair** LHIN had the highest proportion of refugees (28.8%) and the **North East** LHIN had the lowest proportion (10.6%).
- 31.1% of Ontarians were **first generation** (i.e. born outside Canada), ranging from 6.0% in the **North East** LHIN to 52.1% in the **Central** LHIN.

### Visible Minorities

'Visible minority' refers to whether a person belongs to a visible minority group as defined by the *Employment Equity Act* and, if so, the visible minority group to which the person belongs. The *Employment Equity Act* defines visible minorities as "*persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour*". The visible minority population consists mainly of the following groups: South Asian, Chinese, Black, Filipino, Latin American, Arab, Southeast Asian, West Asian, Korean and Japanese.

- In 2016, 29.3% of the Ontario population was a visible minority. Across the LHINs, the visible minority population ranged from 2.4% in the **North East** LHIN to 63.3% in the **Central West** LHIN.

### Indigenous (Aboriginal) Identity

In the Census, Aboriginal Identity refers to whether a person identifies as belonging to the Aboriginal peoples of Canada. This includes those who are First Nations, Métis, or Inuk (Inuit) and/or those who are Registered or Treaty Indians (that is, registered under the Indian Act), and/or those who have membership in a First Nation or Indian Band. In this document, the term "Indigenous" is used in place of "Aboriginal" but with the same meaning.<sup>[1]</sup>

Statistics Canada data is based on self-identification and caution should be exercised in analyzing trends for Indigenous populations. Over time, patterns in self-identification for the Census have changed and in recent years, a growing number of people who had not previously identified with an Indigenous group are now doing so.

Some Indigenous organizations question the accuracy of the figures provided by the Census for Indigenous populations for methodological reasons. For example:

- [Tungasuvvingat Inuit \(TI\)](#) has publicly criticized the cultural appropriateness of the methodology used by Statistics Canada for the Census, claiming that Census results under-count the number of Inuit living in Ontario.<sup>[2]</sup> TI cites research conducted in 2010, [Our Health Counts Urban Indigenous Health Database Project](#), that found the Inuit population living in Ottawa was approximately four times the 2006 Census count for that city, by using a more culturally appropriate and effective methodology.<sup>[3]</sup>
- The [Métis National Council](#) publicly questioned the 2016 Census figures for Métis in Canada, claiming that the surge in Métis populations across the country are a result of misunderstandings around what it is to be Métis, leading to over-counting of Métis.<sup>[4]</sup>

### On-reserve and incompletely enumerated reserves.

While Ontario recognizes the 133 First Nation communities recognized by Chiefs of Ontario, the Census reflects 120 of the 126 First Nation communities registered under the Indian Act. Statistics derived from the 2016 Census<sup>[5]</sup> do not include residents of 8 Ontario First Nations reserves (**6 First Nation Bands**) which were **non/incompletely enumerated**.

1. [Six Nations of the Grand River](#), the First Nation with the largest population in Canada
  2. Chippewas of the Thames
  3. Oneida Nation of the Thames
  4. Wahta Mohawk
  5. Pikangikum
  6. Batchewana
- According to Indigenous and Northern Affairs Canada (INAC), the estimated total Registered or Treaty Indian Status population in Ontario is **210,159** of which **96,710** live **on-reserve and Crown land** and **113,449** live **off-reserve**, (demonstrating that **43,870** non/incompletely enumerated Registered Treaty Indians living **on-reserve** were not captured by the Census) and therefore not included in on-reserve statistics.
  - According to the Census, 2.8% of the Ontario population identified as Indigenous, with 1.8% reporting identifying as First Nations and 0.9% identifying as Métis.
    - By LHIN, the **North West** had the highest proportion of the population identifying as Indigenous (25%) and the **Central** LHIN had the lowest proportion (0.6%).

### Education

- In 2016, 10.4% of the provincial population reported having less than a high school education, 24.5% reported completion of high school as their highest level of education, 33.2% reported completion of a post-secondary education below a bachelor's degree, and 31.9% reported completion of a bachelor's degree and beyond.

---

<sup>[2]</sup> "Uncounted: Census far underestimated Ottawa's Inuit population, study says", Joanne Laucius, *Ottawa Citizen*, December 3, 2017. Available online: <http://ottawacitizen.com/news/local-news/uncounted-census-far-underestimated-ottawas-inuit-population-study-says>

<sup>[3]</sup> *Our Health Counts: Urban Indigenous Health Database Project, Community Report, Inuit Adults, Ottawa (July 2017)*. Accessible Online: <http://tungasuvvingatinuit.ca/wp-content/uploads/2017/12/Our-Health-Counts-Urban-Indigenous-Health-Database-Project-Inuit-Adults-July-2017.pdf>

<sup>[4]</sup> "Who Can Call Themselves Métis?", Chris Anderson, *The Walrus*, December 29, 2017. Available online: <https://thewalrus.ca/who-can-call-themselves-metis/>

<sup>[5]</sup> Statistics Canada, *Guide to the Census of the Population, 2016, Appendix 1.2 – Incompletely enumerated Indian settlements*. Available online: <http://www12.statcan.gc.ca/census-recensement/2016/ref/98-304/app-ann1-2-eng.cfm>

- Across LHINs, the percentage of the population with less than high school ranged from 7.1% in **Mississauga Halton** to 16.7% in **North West**.
- The percentage of the population with high school completion ranged from 16.7% in **Toronto Central** to 29.6% in **North Simcoe Muskoka**.
- The percentage of the population with post-secondary education below bachelor's degree ranged from 22.3% in **Toronto Central** to 43.4% in **North East**.
- The percentage of the population with bachelor's degree completion and beyond ranged from 16.9% in **North East** to 53.2% in **Toronto Central**.

#### **Labour Force Participation**

- In 2016, 65% of the provincial population over the age of 15 participated in the labour force, while 7.4% was unemployed.
- Of those employed in 2016, 44% of Ontarians had a commute time from their residence to their place of work of 30 minutes or more, while 22.5% had a commute time of 45 minutes or more.



## Percent of Population in the labour force (Participation rate), Ontario

LHIN Ranks		Sub-Region Ranks	
Lowest Participation Rates		Lowest Participation Rates	
1	North East	1	Rural Hastings (1001)
2	South East	2	James and Hudson Bay Coasts (1305)
3	Erie St. Clair	3	Haliburton County and City of Kawartha Lakes (902)
4	North West	4	Scarborough North (906)
5	Central East	5	North Simcoe (1205)
6	HNHB	6	Nipissing-Temiskaming (1301)
7	North Simcoe Muskoka	7	Windsor (101)
		8	Algoma (1303)
Highest Participation Rates		Highest Participation Rates	
8	South West	69	Northern York Region (806)
9	Central	70	Western Ottawa (1102)
10	Champlain	71	Mid-East Toronto (704)
11	Central West	72	Dufferin (502)
12	Mississauga Halton	73	Mid-West Toronto (702)
13	Waterloo Wellington	74	Bolton-Caledon (503)
14	Toronto Central	75	Halton Hills (602)
		76	Milton (603)

## Percent of Population that are Unemployed, Ontario

LHIN Ranks		Sub-Region Ranks	
Lowest Proportion		Lowest Proportion	
1	Waterloo Wellington	1	Wellington (304)
2	South West	2	Huron Perth (202)
3	HNHB	3	Niagara North West (403)
4	Champlain	4	Oxford (205)
5	North Simcoe Muskoka	5	Tecumseh Lakeshore Amherstburg LaSalle (102)
6	Toronto Central	6	Halton Hills (602)
7	South East	7	Milton (603)
		8	Burlington (402)
Highest Proportion		Highest Proportion	
8	Central	69	North York West (801)
9	Mississauga Halton	70	Nipissing Temiskaming (1301)
10	Erie St. Clair	71	Scarborough South (907)
11	Central West	72	Scarborough North (906)
12	Central East	73	Algoma (1303)
13	North West	74	District of Thunder Bay (1403)
14	North East	75	Northern (1405)
		76	James and Hudson Bay Coasts (1305)

2016 Census Profile	Ontario	Range Across the 14 LHINs	Range Across the 76 Sub-Regions
<b>Census Population 2016</b>			
Dependency ratio	64.5	46.9 - 72.8	34.8 - 86.8
<b>Urban-Rural Gradient</b>			
% large urban	68.1%	0% - 100.0%	0% - 100%
% medium/small population centre	14.7%	0% - 52.7%	0% - 100%
% rural or small communities adjacent to urban areas	8.4%	0% - 26.1%	0% - 53.9%
% rural and small town	8.8%	0% - 40.1%	0% - 100%
Land Area (sq km)	908,699	192.2 - 406,925.7	21.9 - 264,926.2
Population Density (persons per square kilometre)	14.8	0.6 - 6,412.6	0.0 - 9,065.1
<b>Population by Household and Families</b>			
% of people age 65+ living alone	23.5%	13.8% - 33.8%	8.9% - 43.2%
% of dwellings in need of major repairs	6.1%	4.5% - 11.5%	2.6% - 44.0%
% of households not suitable	6.0%	2.5% - 10.9%	2.0% - 21.7%
<b>Language</b>			
% who report English as their mother tongue	69.5%	50.0% - 91.7%	31.1% - 95.7%
% who report French as their mother tongue	4.3%	1.1% - 22.3%	0.5% - 47.1%
% with no knowledge of English or French	2.5%	0.2% - 5.4%	0.1% - 17.6%
% Francophone (IDF)	4.7%	1.4% - 22.5%	0.5% - 47.3%
<b>Population (in Private Households) Living in Low Income</b>			
% Population living below low-income measure (LIM-AT)	14.4%	11.6% - 19.0%	5.2% - 24.0%
% Children living in low income households/LIM (age<6)	19.8%	16.5% - 25.1%	5.3% - 36.8%
% Children living in low income households/LIM (age<18)	18.4%	14.6% - 21.9%	5.9% - 33.9%
% Seniors living in low income households/LIM (age 65+)	12.0%	9.6% - 18.7%	5.3% - 23.0%
<b>Immigration</b>			
% of population who are immigrants	29.1%	5.5% - 49.3%	2.7% - 66.9%
% of population who arrived within 5 years	3.6%	0.4% - 6.5%	0.2% - 11.4%
% first generation	31.1%	6.0% - 52.1%	1.4% - 71.1%
<b>Visible Minorities</b>			
% of population who are visible minorities	29.3%	2.4% - 63.3%	1.2% - 85.3%
<b>Indigenous Identity</b>			
% of population of Aboriginal identity	2.8%	0.6% - 24.8%	0.2% - 93.4%
% population First Nations identity	1.8%	0.4% - 20.2%	0.1% - 92.7%
% population Metis identity	0.9%	0.2% - 4.8%	0.1% - 10.8%
% population Inuk identity	0.0%	0% - 0.1%	0% - 0.2%
% Multiple Aboriginal responses	0.0%	0% - 0.2%	0% - 0.3%
% Aboriginal responses not included elsewhere	0.1%	0% - 0.2%	0% - 0.3%
<b>Educational Attainment (age 25-64)</b>			
% Population with less than high school	10.4%	7.1% - 16.7%	3.0% - 48.9%
% Population with high school completion	24.5%	16.7% - 29.6%	12.8% - 32.0%
% Population with post-secondary education below bachelor's degree	33.2%	22.3% - 43.4%	19.5% - 46.8%
% Population with bachelor's degree completion and beyond	31.9%	16.9% - 53.2%	8.4% - 64.8%
<b>Labour Force Activity</b>			
% In the labour force (Participation rate)	64.7%	58.6% - 69.4%	52.3% - 74.2%
% Unemployed	7.4%	6.0% - 9.4%	4.1% - 19.2%
% 60 minutes and over commuting duration	12.4%	2.8% - 20.9%	1.3% - 25.0%

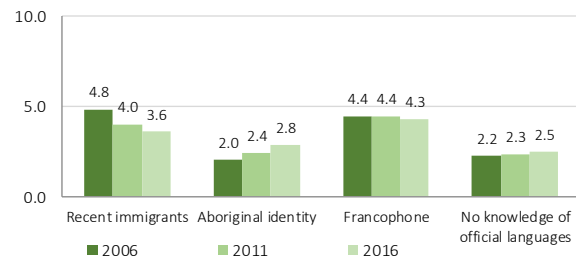
## Ontario

### 2016 Census Profile Summary

#### Number of private dwellings

2006	4,972,869
2011	5,308,785
2016	5,598,391

#### Immigration, identity and language (% of population)

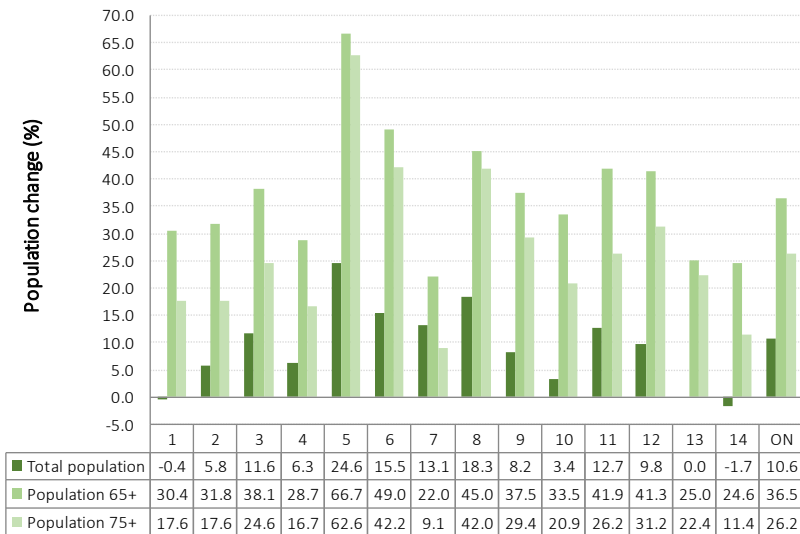


#### Population change (2006-2016)

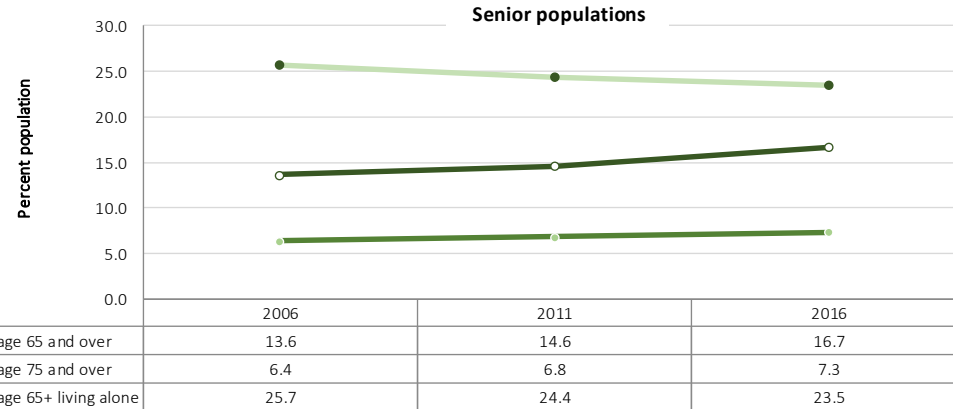
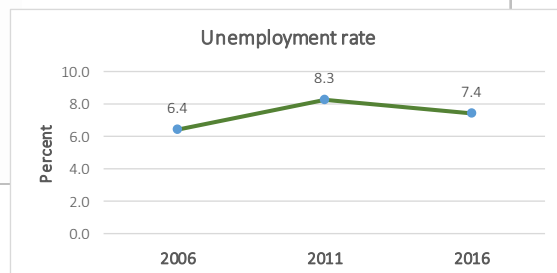
The growth of the senior (65+) population across LHINs ranged from 67% in Central West to 22% in Toronto Central.

The growth of the Ontario population age 75+ between 2006 and 2016 was 26.2%. Total population growth for the same time period was 10.6%.

#### Population change, 2006 to 2016, by LHIN



#### Change in unemployment rate, 2006 to 2016 = 15.4%



***Births, Maternal, Obstetrical and Reproductive Health Measures  
Ontario, LHIN and Sub-Region***

**Notes:**

This section and the accompanying workbook contain LHIN-level analysis of births and maternal outcomes from the Better Outcomes Registry & Network (BORN) Ontario, and the Canadian Institute for Health Information (CIHI). It also includes LHIN- and sub-region level analysis of reproductive health measures from Public Health Ontario (PHO).

Detailed analysis is provided in the accompanying Excel workbook:  
***2b Births (2018).xlsx***

The excel workbook contains:

1. *BORN analysis (births to Ontario women), 2016/17 contains:*
  - *Total births and total pregnancies by LHIN of birth and LHIN of maternal residence*
  - *Distribution by maternal age at birth by LHIN of birth; rate of Caesarean delivery and provider who caught the baby for hospital births by LHIN of hospital; rate of pre-term birth less than 37 weeks, births small and large for gestational age, rate of exclusive breastfeeding<sup>†</sup> among term live hospital births by LHIN of maternal residence*
  - *Maternal smoking at first prenatal visit and at time of labour, alcohol, drug and substance exposure during pregnancy<sup>‡</sup> by LHIN of maternal residence*
2. *CIHI analysis, by LHIN of patient residence, 2016/17 for rates per 100:*
  - *Epidural for vaginal and all deliveries*
  - *Assisted delivery among vaginal deliveries*
  - *Primary and repeat Caesarean section*
3. *PHO Analysis, by LHIN and sub-region of patient residence, 2016 calendar year*
  - *Mean age of mother at birth of first infant and overall mean age*
  - *Fertility rate per 1,000 females of reproductive age*
  - *Crude birth rate*
  - *Still birth rate*
  - *Multiple live birth rate*
  - *Low birth weight rate and full term low birth weight*
  - *Small and large for gestational age*

<sup>†</sup>Results for exclusive breastfeeding for **Central West, Toronto Central, Central, Central East**, Unknown LHINs and Ontario should be interpreted with caution due to the large percentage of missing values.

<sup>‡</sup>Results for smoking (at first prenatal visit, at time of labour), alcohol consumption during pregnancy, and drug and substance exposure during pregnancy for **Toronto Central** LHIN should be interpreted with caution due to the large percentage of missing cases

**Prepared May 2018**

**Excel workbooks provided by:** *Health Analytics Branch, Ministry of Health and Long Term Care*  
**Analysis & interpretation prepared by:** *Maria Sanchez, Central West LHIN*

## Births and Maternal Age

- In FY 2016/17, there were 138,781 pregnancies and 141,163 births to Ontario women. 97% of births took place in a hospital; the remaining 3% were in the home, birth centre or other (including nursing stations, births outside of Ontario and other Ontario locations). These proportions varied slightly across LHINs. In **Central** LHIN, the highest percentage of women gave birth in hospital (99%), compared to the lowest in **Waterloo Wellington** LHIN (95%).
- In 2016, the crude birth rate (per 1,000) population in Ontario was 9.8, ranging from 8.6 (in **South East** LHIN) to 12.1 (in **Central West** LHIN).

- By sub-region, the following had the lowest and highest birth rates per 1,000 population:

Lowest Birth Rate	Highest Birth Rate
<ul style="list-style-type: none"> <li>- <b>Couchiching (NSM)</b>—6.7</li> <li>- <b>North Simcoe (NSM)</b>—6.7</li> <li>- <b>Northumberland County (CE)</b>—6.8</li> <li>- <b>Haliburton County and City Of Kawartha Lakes (CE)</b>—6.9</li> <li>- <b>Oakville (MH)</b>—7.3</li> <li>- <b>Muskoka (NSM)</b>—7.3</li> <li>- <b>South West Mississauga (MH)</b>—7.4</li> <li>- <b>Leeds, Lanark &amp; Grenville (SE)</b>—7.5</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Oxford (SW)</b>—11.5</li> <li>- <b>District of Rainy River (NW)</b>—11.6</li> <li>- <b>Bramalea (CW)</b>—13.0</li> <li>- <b>South Simcoe (C)</b>—13.0</li> <li>- <b>Brampton (CW)</b>—13.3</li> <li>- <b>Milton (MH)</b>—18.4</li> <li>- <b>Northern (NW)</b>—19.0</li> <li>- <b>James and Hudson Bay Coasts (NE)</b>—20.6</li> </ul>

- The fertility rate per 1,000 Ontario females of reproductive age (15 to 49) was 41.2, ranging from 36.3 (in **Mississauga Halton** LHIN) to 47.0 (in **North West** LHIN).
- By sub-region, the following had the lowest and highest fertility rates per 1,000 females aged 15 to 49:

Lowest Fertility Rate (15-49)	Highest Fertility Rate (15-49)
<ul style="list-style-type: none"> <li>- <b>Oakville (MH)</b>—30.0</li> <li>- <b>Halton Hills (MH)</b>—31.5</li> <li>- <b>South West Mississauga (MH)</b>—31.8</li> <li>- <b>Bolton-Caledon (CW)</b>—33.3</li> <li>- <b>Couchiching (NSM)</b>—33.7</li> <li>- <b>North West Mississauga (MH)</b>—33.9</li> <li>- <b>Dufferin (CW)</b>—34.4</li> <li>- <b>North Simcoe (NSM)</b>—34.8</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Wellington (WW)</b>—51.1</li> <li>- <b>Oxford (SW)</b>—53.3</li> <li>- <b>South Simcoe (C)</b>—55.8</li> <li>- <b>District of Rainy River (NW)</b>—57.0</li> <li>- <b>Rural Hastings (SE)</b>—58.4</li> <li>- <b>Milton (MH)</b>—68.1</li> <li>- <b>Northern (NW)</b>—77.4</li> <li>- <b>James and Hudson Bay Coasts (NE)</b>—83.9</li> </ul>

- For teenagers (15 to 19), the fertility rate per 1,000 Ontario females was 6.3, ranging from 1.6 (in **Mississauga Halton** LHIN) to 26.0 (in **North West** LHIN). *Note, only 73 of the 76 sub-regions had reportable fertility rates for teenagers (Niagara North West, Bolton-Caledon, and Halton Hills do not report this rate).*
  - By sub-region, the following had the lowest and highest fertility rates per 1,000 females aged 15 to 19:

Lowest Teen Fertility Rate	Highest Teen Fertility Rate
<ul style="list-style-type: none"> <li>Eastern York Region (C)—0.6</li> <li>Western York Region (C)—0.8</li> <li>North West Mississauga (MH)—0.8</li> <li>Oakville (MH)—0.8</li> <li>Durham West (CE)—1.4</li> <li>North Toronto (TC)—1.4</li> <li>Mid-East Toronto (TC)—1.4</li> <li>Scarborough North (CE)—1.5.</li> </ul>	<ul style="list-style-type: none"> <li>Algoma (NE)—17.4</li> <li>Cochrane (NE)—17.9</li> <li>Chatham City Centre (ESC)—18.4</li> <li>District of Kenora (NW)—20.6</li> <li>District of Rainy River (NW)—26.0</li> <li>District of Thunder Bay (NW)—39.7</li> <li>Northern (NW)—69.0</li> <li>James and Hudson Bay Coasts (NE)—71.6</li> </ul>

- Provincially, 1.9% of the women who gave birth were under 20 years of age and 23.8% were aged 35 years or older. These proportions varied greatly across LHINs.
  - The **North West** LHIN had the highest percentage of women under 20 years of age who gave birth (7.0%), while **Mississauga Halton** LHIN had the lowest (0.6%).
  - The **Toronto Central** LHIN had the highest percentage of women 35 years or older who gave birth (36.4%), while the **North East** LHIN had the lowest (12.0%).

Teen mothers and their infants may be at greater risk for pre-term deliveries and/or low birth weight and increased perinatal mortality due to factors such as inadequate prenatal care, increased likelihood of social deprivation, drug use and smoking, poor nutrition resulting in poor maternal weight gain and anemia and premature termination of education. Higher maternal age is associated with increased maternal morbidity (including gestational hypertension and diabetes), Caesarean delivery, multiple gestation pregnancy, and adverse pregnancy outcomes (including chromosomal abnormalities, miscarriage, low birth weight, being small for gestational age, pre-term birth, perinatal mortality, and serious neonatal morbidity).

- The overall mean age of mothers was 30.7, ranging from 28.0 (in **North West** LHIN) to 32.7 (**Toronto Central** LHIN).
  - By sub-region, the following had the youngest and oldest mean age of mothers:

Youngest Mean Age of Mothers	Oldest Mean Age of Mothers
<ul style="list-style-type: none"> <li>James and Hudson Bay Coasts (NE)—25.3</li> <li>Northern (NW)—26.0</li> <li>District of Thunder Bay (NW)—26.8</li> <li>District of Kenora (NW)—27.4</li> <li>District of Rainy River (NW)—27.6</li> <li>Cochrane (NE)—27.8</li> <li>Chatham City Centre (ESC)—28.1</li> <li>Nipissing-Temiskaming (NE)—28.1</li> </ul>	<ul style="list-style-type: none"> <li>East Toronto (TC)—32.4</li> <li>North York Central (C)—32.4</li> <li>South Etobicoke (MH)—32.4</li> <li>Western York Region (C)—32.5</li> <li>Mid-West Toronto (TC)—32.6</li> <li>Mid-East Toronto (TC)—32.6</li> <li>West Toronto (TC)—32.8</li> <li>North Toronto (TC)—33.2</li> <li>Oakville (MH)—33.2</li> </ul>

- In 2016, the overall mean age of mothers at the birth of their first infant was 29.3, ranging from 26.2 (in **North West** LHIN) to 31.8 (**Toronto Central** LHIN).
  - By sub-region, the following had the youngest and oldest mean age of mothers at the birth of their first infant:

Youngest Mean Age of New Mothers	Oldest Mean Age of New Mothers
<ul style="list-style-type: none"> <li>- James and Hudson Bay Coasts (<b>NE</b>)—22.0</li> <li>- Northern (<b>NW</b>)—22.6</li> <li>- District of Thunder Bay (<b>NW</b>)—24.1</li> <li>- District of Kenora (<b>NW</b>)—25.0</li> <li>- District of Rainy River (<b>NW</b>)—25.2</li> <li>- Rural Hasting (<b>SE</b>)—26.0</li> <li>- Chatham City Centre (<b>ESC</b>)—26.1</li> <li>- Rural Kent (<b>ESC</b>)—26.3</li> <li>- Cochrane (<b>NE</b>)—26.3</li> </ul>	<ul style="list-style-type: none"> <li>- Burlington (<b>HNHB</b>)—31.2</li> <li>- South Etobicoke (<b>MH</b>)—31.2</li> <li>- North York Central (<b>C</b>)—31.2</li> <li>- East Toronto (<b>TC</b>)—31.4</li> <li>- Oakville (<b>MH</b>)—31.6</li> <li>- West Toronto (<b>TC</b>)—31.6</li> <li>- Mid-East Toronto (<b>TC</b>)—31.9</li> <li>- Mid-West Toronto (<b>TC</b>)—31.9</li> <li>- North Toronto (<b>TC</b>)—32.2</li> </ul>

- In 2016, the stillbirth rate per 1,000 live births was 8.1, ranging from 6.7 (in **Central** LHIN) to 10.4 (in **North West** LHIN).). Note, only 63 of the 76 sub-regions had reportable stillbirth rates.
  - By sub-region, the following had the lowest and highest stillbirth rates per 1,000 live births:

Lowest Stillbirth Rates	Highest Stillbirth Rates
<ul style="list-style-type: none"> <li>- North Toronto (<b>TC</b>)—4.0</li> <li>- Guelph-Puslinch (<b>WW</b>)—4.7</li> <li>- Durham West (<b>CE</b>)—5.2</li> <li>- Oakville (<b>Mississauga Halton</b>)—5.3</li> <li>- Algoma (<b>NE</b>)—5.5</li> <li>- Eastern Ottawa (<b>Ch</b>)—5.5</li> <li>- Leeds, Lanark &amp; Grenville (<b>SE</b>)—5.6</li> <li>- Quinte (<b>SE</b>)—5.7</li> <li>- North West Mississauga (<b>MH</b>)—5.7</li> </ul>	<ul style="list-style-type: none"> <li>- South Etobicoke (<b>MH</b>)—11.1</li> <li>- City of Thunder Bay (<b>NW</b>)—11.1</li> <li>- Rural Kent (<b>ESC</b>)—11.9</li> <li>- South West Mississauga (<b>MH</b>)—12.1</li> <li>- Windsor (<b>ESC</b>)—12.1</li> <li>- Brampton (<b>CW</b>)—12.2</li> <li>- District of Kenora (<b>NW</b>)—12.9</li> <li>- Barrie and Area (<b>NSM</b>)—13.4</li> </ul>

### Multiple Births

- The multiple live birth rate per 100 live births in 2016 was 3.3, ranging from 1.4 (in **North West** LHIN) to 3.9 (in **South East** LHIN).). Note, only 73 of the 76 sub-regions had reportable multiple live birth rates.
  - By sub-region, the following had the lowest and highest multiple live birth rate per 100 live births:

Lowest Multiple Birth Rates	Highest Multiple Birth Rates
<ul style="list-style-type: none"> <li>- Northern (<b>NW</b>)—0.0</li> <li>- District of Kenora (<b>North West</b>)—0.0</li> <li>- Cochrane (<b>NE</b>)—1.5</li> <li>- Rural Kent (<b>ESC</b>)—1.6</li> <li>- Couchiching (<b>NSM</b>)—1.9</li> <li>- Chatham City Centre (<b>ESC</b>)—2.1</li> <li>- Niagara North West (<b>HNHB</b>)—2.2</li> <li>- Sudbury-Manitoulin-Parry Sound (<b>NE</b>)—2.4</li> </ul>	<ul style="list-style-type: none"> <li>- Quinte (<b>SE</b>)—4.2</li> <li>- West Toronto (<b>TC</b>)—4.3</li> <li>- South West Mississauga (<b>MH</b>)—4.3</li> <li>- Essex South Shore (<b>ESC</b>)—4.3</li> <li>- North Toronto (<b>TC</b>)—4.5</li> <li>- Kingston (<b>SE</b>)—4.9</li> <li>- Tecumseh Lakeshore Amherstburg LaSalle (<b>ESC</b>)—5.0</li> <li>- Muskoka (<b>NSM</b>)—5.9</li> </ul>



### Pre-Term Births

Babies who are born pre-term are more likely to die or experience health problems during the first year after birth. There are immediate costs associated with intensive hospital care that is required at birth, as well as additional costs related to long-term complications such as respiratory problems, motor and sensory impairment, and neurocognitive impairment.

- 8% of births in Ontario hospitals in 2016 were pre-term (less than 37 weeks gestation).
  - The pre-term birth rate ranged from 7% in **North West** to 9% in **Central West**.
    - By sub-region, the following had the lowest and highest pre-term birth rates per 100 live births:

Lowest Pre-Term Birth Rates	Highest Pre-Term Birth Rates
<ul style="list-style-type: none"><li>- District of Kenora (NW)—1.8</li><li>- Northern (NW)—4.2</li><li>- Niagara North West (HNHB)—5.3</li><li>- Couchiching (NSM)—5.6</li><li>- Milton (MH)—5.9</li><li>- Elgin (South West) (6.0</li><li>- James and Hudson Bay Coasts (NE)—6.4</li><li>- Haliburton County and City Of Kawartha Lakes (CE)—6.5</li></ul>	<ul style="list-style-type: none"><li>- North York West (C)—9.4</li><li>- West Toronto (TC)—9.4</li><li>- Brampton (CW)—9.6</li><li>- Bramalea (CW)—9.6</li><li>- Western Champlain (Ch)—9.7</li><li>- North Simcoe (NSM)—9.9</li><li>- South Simcoe (C)—10.0</li><li>- Algoma (NE)—10.8</li></ul>

### Size for Gestational Age and Birth Weight

Gestational age is the common term used during pregnancy to describe how far along the pregnancy is. It is measured in weeks, from the first day of the woman's last menstrual cycle to the current date. A normal pregnancy can range from 38 to 42 weeks.

Infants are considered large for gestational age if they have a birth weight more than the 90<sup>th</sup> percentile of birth weights of the same sex and the same gestational age. Infants who are large for gestational age are associated with adverse perinatal outcomes such as episiotomy, operative vaginal delivery, Caesarean delivery, shoulder dystocia, infant fracture, and brachial plexus injuries in the newborn.

- In Ontario, 10% of newborns were classified as “large for gestational age” in 2016.
  - The large for gestational age rate ranged from 7% in the **Central West** LHIN to 16% in the **North West** LHIN.

- By sub-region, the following had the lowest and highest large for gestational age rate per 100 live births:

Lowest Large for Gestational Age Rates	Highest Large for Gestational Age Rates
<ul style="list-style-type: none"> <li>- Scarborough North (CE)—5.6</li> <li>- Eastern York Region (C)—5.7</li> <li>- North West Mississauga (MH)—6.2</li> <li>- Mid-West Toronto (TC)—6.2</li> <li>- Brampton (CW)—6.4</li> <li>- North York Central (C)—6.4</li> <li>- East Mississauga (MH)—6.6</li> <li>- Bramalea (CW)—6.7</li> <li>- North Toronto (TC)—6.7</li> </ul>	<ul style="list-style-type: none"> <li>- City of Thunder Bay (NW)—14.2</li> <li>- Northumberland County (CE)—14.2</li> <li>- Oxford (SW)—15.8</li> <li>- District of Thunder Bay (NW)—16.1</li> <li>- District of Kenora (NW)—17.2</li> <li>- Rural Frontenac, Lennox &amp; Addington (SE)—17.5</li> <li>- District of Rainy River (NW)—20.3</li> <li>- Northern (NW)—20.7</li> <li>- James and Hudson Bay Coasts (NE)—35.3</li> </ul>

Infants are considered small for gestational age if they have a birth weight less than the 10<sup>th</sup> percentile of birth weights of the same sex and same gestational age. Infants who are small for gestational age are at increased risk for morbidity and mortality in the perinatal period, childhood, adolescence, and beyond.

- Provincially, 10% of newborns were classified as “small for gestational age” in 2016.
  - The small for gestational age rate ranged from 6% in the North West LHIN to 13% in the Central West LHIN.
- By sub-region, the following had the lowest small for gestational age rate per 100 live births:

Lowest Small for Gestational Age Rates	Highest Small for Gestational Age Rates
<ul style="list-style-type: none"> <li>- James and Hudson Bay Coasts (NE)—3.3</li> <li>- District of Kenora (NW)—5.2</li> <li>- Wellington (WW)—5.2</li> <li>- Haldimand Norfolk (HNHB)—5.5</li> <li>- City of Thunder Bay (NW)—5.8</li> <li>- Oxford (SW)—5.8</li> <li>- Essex South Shore (ESC)—6.9</li> <li>- Grey Bruce (SW)—5.9</li> </ul>	<ul style="list-style-type: none"> <li>- Scarborough North (CE)—12.2</li> <li>- North York Central (C)—12.6</li> <li>- Bramalea (CW)—12.8</li> <li>- North York West (C)—13.3</li> <li>- Brampton (CW)—13.4</li> <li>- Scarborough South (CE)—13.9</li> <li>- North West Mississauga (MH)—14.4</li> <li>- North Etobicoke Malton West Woodbridge (CW)—14.6</li> </ul>

Low birth weight is defined by the World Health Organization as the weight of an infant at birth of less than 2,500 grams (5.5 pounds) irrespective of the gestational age of the infant. Low birth weight can add to length of hospital stays and health care costs.

- In 2016, the low birth weight rate was 7%, ranging from 4% in the North West LHIN to 9% in the Central West LHIN.

- By sub-region, the following had the lowest and highest low birth weight rate per 100 live births:

Lowest Low Birth Weight Rates	Highest Low Birth Weight Rates
<ul style="list-style-type: none"> <li>- District of Kenora (NW)—1.3</li> <li>- Northern (NW)—2.2</li> <li>- Niagara North West (HNHB)—3.7</li> <li>- Wellington (WW)—4.3</li> <li>- District of Rainy River (NW)—4.3</li> <li>- Couchiching (NSM)—4.3</li> <li>- District of Thunder Bay (NW)—4.5</li> <li>- Elgin (SW)—4.5</li> </ul>	<ul style="list-style-type: none"> <li>- Mid-West Toronto (TC)—7.9</li> <li>- East Mississauga (MH)—8.0</li> <li>- North Etobicoke Malton West Woodbridge (CW)—8.2</li> <li>- North York West (C)—8.9</li> <li>- Algoma)—North East)—9.0</li> <li>- Bramalea (CW)—9.3</li> <li>- Scarborough South (CE)—9.6</li> <li>- Brampton (CW)—9.6</li> </ul>

- In Ontario, the **full-term** low birth weight rate per 100 live births was 2.0, ranging from 1.2 in the **North West** LHIN to 2.8 in the **Central West** LHIN. *Note: only 72 of the 76 sub-regions had reportable full-term low birth weight rates.*

- By sub-region, the following had the lowest and highest full-term low birth weight rate per 100 live births:

Lowest Full-Term Low Birth Weight Rates	Highest Full Term Low Birth Weight Rates
<ul style="list-style-type: none"> <li>- District of Rainy River (NW)—0.0</li> <li>- Wellington (WW)—0.7</li> <li>- South Etobicoke (MH)—1.0</li> <li>- Brant (HNHB)—1.1</li> <li>- Dufferin (CW)—1.1</li> <li>- Peterborough City and County (CE)—1.1</li> <li>- Haldimand Norfolk (HNHB)—1.2</li> <li>- Lambton (ESC)—1.2</li> <li>- Durham North East (CE)—1.2</li> <li>- Niagara North West (HNHB)—1.2</li> </ul>	<ul style="list-style-type: none"> <li>- Haliburton County and City Of Kawartha Lakes (CE)—2.8</li> <li>- Nipissing-Temiskaming (NE)—2.8</li> <li>- Rural Hastings (SE)—2.8</li> <li>- North Etobicoke Malton West Woodbridge (CW)—2.8</li> <li>- Scarborough North (CE)—2.9</li> <li>- Bramalea (CW)—3.0</li> <li>- North York West (C)—3.2</li> <li>- Brampton (CW)—3.2</li> <li>- Rural Kent (ESC)—3.3</li> <li>- Scarborough South (CE)—3.4</li> </ul>

### Attendants, Assisted Delivery & Epidural Anaesthesia during Labour

In Ontario, women have a range of care providers who attend hospital births.

- Provincially, most hospital births were attended by an obstetrician (79%) although this varied greatly among the LHINs, ranging from 41% in the **North West** LHIN to 91% in the **Mississauga Halton** LHIN.
  - Family physicians attended 7.4% of hospital births provincially and this also varied greatly among the LHINs with the **largest** proportion of family physician hospital births occurring in the **North West** LHIN (41%) and the **smallest** proportion occurring in the **Erie St. Clair** LHIN (2%).
  - Provincially, 7% of women had their hospital birth attended by a midwife, with the highest proportion of midwife-attended births occurring in the **North West** LHIN (16%) and the lowest occurring in the **Toronto Central** LHIN (5%).
- Among vaginal deliveries, the overall assisted delivery rate for Ontario women was 12%, ranging from 6% in **North West** to 17% in **Toronto Central**.
  - The vacuum extracted assisted delivery rate was 9%, ranging from 4% in **South West** to 13% in **Toronto Central**.

- The forceps assisted delivery rate was 3%, ranging from 0.7% in **North West** to 5% in **Erie St. Clair**.
- In Ontario, the epidural rate for vaginal deliveries was 60% and for all deliveries was 51%.
  - The rate for vaginal deliveries ranged from 1% (**North West** LHIN) to 73% (**Toronto Central** LHIN) and for all deliveries from 17% (**North West** LHIN) to 62% (**Toronto Central** LHIN).

### Caesarean Deliveries

The rate of Caesarean deliveries has important implications on service requirements and capacity issues.

- In 2016, Caesarean deliveries accounted for 28% of all births in hospital.
  - By LHIN of hospital, the **highest** rate of Caesarean deliveries occurred in **Toronto Central** LHIN (33%) and the **lowest** rate was found in the **North West** LHIN (23%). In addition to **Toronto Central** LHIN, hospitals in two other LHINs also had rates of Caesarean delivery of 30% or higher (**Central West** and **North East**).
  - By LHIN of patient residence, the total Caesarean section rate ranged from 24% for residents of the **North West** and **South West** LHINs to 31% for residents of the **Central West** LHIN.
- The rate of **primary** Caesarean section rate (the mother's first Caesarean, regardless if she had given birth vaginally before) was 19 per 100 deliveries without a previous Caesarean section.
  - This rate ranged from 16% for patients residing in the **North West** LHIN to 22% for patients residing in the **Toronto Central** LHIN.
  - The primary Caesarean section rate was lower in women under 35 years of age (17%) compared to those 35 and over (23%). These rates ranged from 15% (**North West** LHIN) to 20% (**North East** LHIN) for those women under 35 years of age and 16% (**North Simcoe Muskoka** LHIN) to 26% (**North East** LHIN) for women over 35.
- Provincially, the rate of **repeat** Caesarean sections was 83% with a previous Caesarean section and ranged from 72% (**South West** LHIN) to 87% (**Central West** and **North Simcoe Muskoka** LHINs).

### Breastfeeding

Breastfeeding offers numerous short term and long-term benefits for infants (e.g., growth, immunity, and cognitive development) and for mothers (e.g., reduced postpartum bleeding, delayed resumption of ovulation, and improved bone remineralisation).

- Provincially, the rate of exclusive breastfeeding at hospital discharge among term live births was 63%.
  - The highest proportion of exclusive breastfeeding was in the **Waterloo Wellington** LHIN (78%) and the lowest was in the **Central West** LHIN (47%).
- *Note that results for exclusive breastfeeding for **Central West**, **Toronto Central**, **Central**, **Central East**, **Unknown** LHINs and Ontario should be interpreted with caution due to the large percentage of missing values.*

## Births and Maternal Outcomes, Ontario

	Ontario	Range across the LHINs	Range across the sub-regions
<b>Total births in Ontario, LHIN of maternal residence</b>	141,163	2,410-18,828	
Hospital	136,505	2,352-18,537	
Home	3,813	50-532	
Birth Centre	572	0-281	
<b>Crude birth rate (per 1,000 population)</b>	9.8	8.6-12.1	6.7-20.6
<b>Stillbirth rate (per 1,000 live births)</b>	8.1	6.7-10.4	4.0-13.4
<b>Multiple live birth rate (per 100 live births)</b>	3.3	1.4-3.9	0-5.9
<b>Rate of preterm birth (&lt;37 weeks) (%)*</b>	8.2%	7.3%-9.4%	
<b>Preterm birth rate (per 100 live births)**</b>	8.1	6.8-9.2	1.8-10.8
<b>Total pregnancies in Ontario, LHIN of maternal residence</b>	138,781	2,387-18,554	
<b>Fertility rate (per 1,000 females of reproductive age)</b>			
Overall rate (15 to 49)	41.2	36.3-47.0	30.0-83.9
Teen rate (15 to 19)	6.3	1.6-26.0	0.6-71.6
<b>Distribution of maternal age (%)</b>			
<20	1.9%	0.6%-7.0%	
≥ 35	23.8%	12.0%-36.4%	
<b>Mean age of mother at birth of first infant</b>	29.3	26.2-31.8	22-32.2
<b>Overall mean age of mother at birth</b>	30.7	28.0-32.7	25.3-33.2
<b>Rate of Caesarean delivery (%), LHIN of hospital</b>	28.4%	22.9%-33.1%	
<b>Total Caesarean Section Rate, LHIN of patient</b>	28.4	23.8-31.1	
<b>Primary Caesarean Section Rate, LHIN of patient</b>	19.0	15.5-22.0	
Primary C-Section Rate (< 35 years)	17.9	14.6-20.2	
Primary C-Section Rate (≥ 35 years)	22.9	16.4-26.2	
<b>Repeat Caesarean Section Rate</b>	82.7	71.7-86.6	
<b>Epidural Rate for Vaginal Deliveries</b>	60.3	17.0-73.1	
<b>Epidural Rate for All Deliveries</b>	51.0	16.6-61.8	
<b>Assisted Delivery Rate Among Vaginal Deliveries</b>			
Overall	12.3	6.0-16.8	
Vacuum Extraction	9.1	3.6-13.1	
Forceps	2.8	0.7-5.2	
<b>Healthcare provider who caught the baby for hospital births (%), LHIN of hospital</b>			
Obstetrician	78.8%	41.4%-90.9%	
Family doctor	7.4%	2.4%-40.6%	
Midwife	7.4%	5.1%-15.8%	
Other	6.4%	0.5%-23.4%	
<b>Low birth weight rate (per 100 live births)</b>	6.8	4.4-8.8	1.3-9.6
<b>Full-term low birth weight rate (per 100 live births)</b>	2.0	1.2-2.8	0-3.4
<b>Births small for gestational age (%)*</b>	9.7%	6.1%-13.2%	
<b>Small for gestational age (per 100 live births)**</b>	9.6	6.3-13.0	3.3-14.6
<b>Births large for gestational age (%)*</b>	9.7%	6.9%-16.5%	
<b>Large for gestational age (per 100 live births)**</b>	9.8	7.0-16.4	5.6-35.3
<b>Rate of exclusive breastfeeding among term live hospital births (%), LHIN of maternal residence†</b>	62.8%	47.4%-77.7%	

\* As reported by BORN Ontario

\*\* As reported by Public Health Ontario

†Results for exclusive breastfeeding for Central West, Toronto Central, Central, Central East, Unknown LHINs and Ontario should be interpreted with caution due to the large percentage of missing values.

## Maternal smoking, alcohol and drug use during pregnancy among all women who live in Ontario and who had a live birth or stillbirth (LHIN of maternal residence), 2016/17 (BORN)

- Provincially, the rate of women who self-identified as non-smokers at first prenatal visit was 90.7%, with the **lowest** proportion in the **North West** LHIN (69.1%) and the **highest** proportion in the **Central** LHIN (97.0%). At the time of labour, 92.5% were non-smokers, ranging from 73.0% (in **North West** LHIN) to 97.7% (in **Central** LHIN).
  - The prevalence of smoking 1-10 cigarettes and 10+ cigarettes at the first prenatal visit was 5.5% and 3.2%, respectively. For 1-10 cigarettes, this ranged from 1.9% in **Central** LHIN to 23.3% in **North West** LHIN. At the time of labour, 4.6% smoked 1-10 cigarettes (ranging from 1.5% in **Central** LHIN to 20.4% in **North West** LHIN).
- 2.6% of women reported drinking alcohol and 2.3% using drugs during pregnancy.
- There was considerable variation across LHINs in the proportion of women who reported drinking alcohol and using drugs. The proportion was lowest in the **Central West** LHIN for drinking alcohol (1.2%) and **Central** LHIN for using drugs (0.7%). The proportion was highest in the **North West** LHIN for both alcohol and drug consumption (7.2% and 13.1%, respectively).
- Note that results for smoking (at first prenatal visit, at time of labour), alcohol consumption during pregnancy, and drug and substance exposure during pregnancy for **Toronto Central** LHIN should be interpreted with caution due to the large percentage of missing cases.

	Ontario <sup>‡</sup>	Range across the LHINs
<b>Maternal smoking at first prenatal visit (%), by LHIN of maternal residence<sup>‡</sup></b>		
% women who reported smoking (0) cigarettes/day	90.7%	69.1%-97.0%
% women who reported smoking (1 – 10) cigarettes/day	5.5%	1.9%-23.3%
% women who reported smoking (10+) cigarettes/day	3.2%	0.7%-9.2%
<b>Maternal smoking at time of labour (%)</b>		
% women who reported smoking (0) cigarettes/day	92.5%	73.0%-97.7%
% women who reported smoking (1 – 10) cigarettes/day	4.6%	1.5%-20.4%
% women who reported smoking (10+) cigarettes/day	2.6%	0.6%-7.7%
<b>Alcohol consumption during pregnancy (%)</b>	2.6%	1.2%-7.2%
<b>Drug and substance exposure during pregnancy (%)</b>	2.3%	0.7%-13.1%

<sup>‡</sup>Results for smoking (at first prenatal visit, at time of labour), alcohol consumption during pregnancy, and drug and substance exposure during pregnancy for **Toronto Central** LHIN should be interpreted with caution due to the large percentage of missing cases

## Life Expectancy

- The mean life expectancy at birth in Ontario from was 82 years. Across the LHINs, **Central** LHIN had the **highest** (85) and **North West** LHIN had the **lowest** mean of life expectancy at birth (78) over the period 2012-2014. The provincial value for life expectancy at birth for males from 2012-2014 was 80 years, compared to 84 years for females.
- Provincially, the mean life expectancy at age 65 for both males and females over the period 2012-2014 was 21 years. Life expectancy at age 65 for males over the period 2012-2014 was 19, compared 22 years for females. **North East** LHIN had the **lowest** life expectancy at age 65 for both sexes, and **Central West** had the **highest** (23).

	Ontario	Trend over time	Range across the LHINs	Range across all sub-regions
<b>Life Expectancy</b>				
<b>Life expectancy at birth- Both Sexes 2012-14</b>	82.3	Increasing	78.3 – 84.9	NA
<b>Life expectancy at birth- Male 2012-14</b>	80.2	Increasing	76.1 – 82.9	NA
<b>Life expectancy at birth- Female 2012-14</b>	84.3	Increasing	80.5 – 86.8	NA
<b>Life expectancy at age 65- Both Sexes 2012-14</b>	20.9	Increasing	19.5 – 23.1	NA
<b>Life expectancy at age 65- Male 2012-14</b>	19.3	Increasing	17.7 -21.5	NA
<b>Life expectancy at age 65- Female 2012-14</b>	22.2	Increasing	20.9 – 24.4	NA

## Mortality and Potential Years of Life Lost

- 90,525 Ontario residents died in 2012, an increase of 4.1% in the number of deaths from 2007.
- The crude all-cause mortality rate in 2012 was 675 per 100, 000 population for Ontario residents; a decrease of 0.7% since 2007. Across the LHINs, this rate decreased by 4.6% for **Champlain** LHIN residents and increased by 11.3% for **North West** LHIN residents.
- The leading causes of death for Ontario residents overall were Ischaemic heart disease, Dementia and Alzheimer's disease, and cancer of lung & bronchus.
- 37.2% of Ontario residents' deaths in 2012 were premature (occurred in those aged younger than 75 years).
- In 2012, 551,256 potential years of life were lost by Ontario residents. Potential years of life lost (PYLL) is an estimate of the mean years a person would have lived if they had not died prematurely. A premature death is considered one before the age of 75, so a death at the age of 55 represents 20 'potential' years of life lost. High PYLL rates indicate elevated levels of premature mortality. There was a decrease of 0.6% in PYLL in 2012 since 2007 for Ontario residents.
- The PYLL rate per 100,000 population aged less than 75 years was 4,405 in 2011 for Ontario residents, ranging from 3,013 for **Mississauga Halton** LHIN residents to 7,196 for **North West** LHIN residents.
- The leading causes of PYLL for Ontario residents in 2012 were Ischaemic heart disease, cancer of lung & bronchus, and intentional self-harm.
- For Ontario residents in 2012, Ischaemic heart disease was the leading cause of both death and PYLL.



## Mortality, Potential Years of Life Lost

	Ontario	Trend over time	Range across the LHINs	Range across all sub-regions (2010-2012)
<b>Mortality, 2012</b>				
<b>Total deaths, 2012</b>	90,525	Increasing	2,106 – 11,197	37 – 4,120
<b>% change in total deaths (2007-2012)</b>	4.1%		-0.8% - 15.1%	NA
<b>All-cause mortality rate per 100,000</b>	674.9	Decreasing	417.5 - 960	297.2 – 1,417.9
<b>% change in all-cause mortality rate (2007-</b>	-0.7%		-4.6% -11.3%	NA
<b>% of deaths that were premature (age &lt; 75)</b>	37.3%	Slight decrease	33.8%-44.8%	26.4% - 68.5%
<b>Highest 10 leading causes of death, 2012 (rates per 100,000 population)</b>				
Ischaemic heart disease	98.0		54.0 - 146.1	35.8 – 216.1
Dementia & Alzheimer's disease	55.6		34.0 – 72.3	0.00 – 100.2
Cancer of lungs & bronchus	50.3		27.0 – 78.8	20.4 – 130.8
Cerebrovascular diseases	36.6		23.1 – 52.5	13.8 – 88.5
Chronic lower respiratory diseases	28.4		14.1 – 50.6	8.9 – 88.5
Cancer of colon, rectum, anus	23.4		12.4 – 38.4	9.4 – 49.5
Diabetes	20.7		10.8 – 38.0	8.1 – 75.9
Cancer of lymph, blood & related	20.0		12.8 – 26.8	8.7 – 34.4
Falls	17.4		8.3 – 27.4	0.0 – 37.3
Influenza & pneumonia	15.2		9.4 – 22.9	NA
Cancer of breast	14.3		9.0 – 20.7	NA
<b>Potential years of life lost (PYLL), 2012</b>				
<b>Total PYLL, 2012</b>	551,25		15,832 – 64,893	749 – 23,975
<b>% change in PYLL (2007-2012)</b>	-0.6%		-5.3% - 12.4%	NA
<b>PYLL rate per 100,000 population (age &lt; 75)</b>	4,405	Decreasing	3,013.2 – 7,196.8	2,514.9 –
<b>% change in PYLL rate (2007-2012)</b>	-5.0%		-9.8% - 14.3%	NA
<b>Highest 10 leading causes of PYLL, 2012 (rates per 100,000 population, age &lt;75)</b>				
Ischaemic heart disease	406.8		265.7 – 721.8	108.8 – 1,085.8
Cancer of lung & bronchus	322.6		186.0 – 519.8	156.9 – 947.8
Intentional self-harm	284.7		149.9 – 919.1	70.4 – 4,365.5
Perinatal conditions	253.3		158.5 – 489.6	0.0 – 607.5
Accidental poisoning	190.6		73.1 – 496.4	40.2 – 1,365.1
Transport accidents	171.8		48.8 – 427.8	30.6 – 1,606.4
Cancer of lymph, blood & related	149.1		85.0 – 193.3	NA
Congenital malformations, deformations,	149.0		104.4 – 270.0	0.0 – 507.1
Cancer of breast	147.0		112.7 – 205.5	82.4 – 338.0
Cancer of colon, rectum, anus	141.3		71.8 – 227.6	74.4 – 351.0

## General Health, Risk Factors, and Prevention

### Notes:

This section and the accompanying workbook contain analysis of general health and risk factors for Ontario and LHINs based on the 2015-16 *Canadian Community Health Survey (CCHS)*. Sub-region level analysis is provided using 2011-12 and 2013-14 CCHS data. LHIN-level trends are presented for a selection of measures from CCHS 2005 to 2014.

The target population of the CCHS annual survey is Canadians aged 12+. Individuals living on Aboriginal Reserves and on Crown lands, institutional residents, full-time members of the Canadian Forces and residents of certain remote regions are excluded.

Estimates based on the 2015-16 CCHS should not be compared to previous releases of the CCHS because of a recent survey redesign, which included broad level changes to sampling design, data collection, survey weighting, and questionnaire content.

Detailed analysis is provided in the accompanying Excel workbook:

### **3 General health risk factors prevention (2018)- REVISED2**

The excel workbook contains:

1. *LHIN level analysis of self-rated general health, mental health and stress measures; preventative care such consulting a family doctor, receiving a flu shot; and risk factors including smoking, drinking, overweight, activity and consumption of fruits and vegetables. Results significantly different from Ontario are noted.*
2. *Sub-region level analysis of a sub-set of the above measures based on a combined 4 year file using the 2011-12 & 2013-14 CCHS datasets.*
3. *LHIN level trending of slightly more expanded measures of health, prevention, and risk factors for 2005 to 2014.*
4. *Detailed descriptions for each measure, including changes made in the 2015-16 survey.*
5. *Statistical concepts: Notes regarding the use of the coefficient of variation in determining the reliability of an measure result for general use.*

**Prepared June 2018**

**Excel workbooks provided by:** Health Analytics Branch, Ministry of Health and Long Term Care  
**Analysis & interpretation prepared by:** Brian Schnarch and Allison Lampi, Champlain LHIN

## General Health

- In 2015-16, 61% of Ontarians said they had very good or excellent health.
- Residents of **Toronto Central** LHIN and **Champlain** LHIN were the most likely to indicate that they had very good or excellent health while residents of the **North East**, **North West** and **Central** LHINs were the least likely compared to all Ontarians.
  - At the sub-region level and in comparison to Ontarians as whole, the highest and lowest percentage of residents in the following sub-regions indicated that they had *Very good* or *excellent* health:

Lowest <i>Very Good or Excellent</i> Health	Highest <i>Very Good or Excellent</i> Health
<ul style="list-style-type: none"> <li>- North Simcoe (NSM)</li> <li>- Scarborough South (CE)</li> <li>- North Etobicoke Malton West Woodbridge (CW)</li> <li>- North West Mississauga (MH)</li> <li>- Nipissing-Temiskaming (NE)</li> <li>- Haldimand Norfolk (HNHB)</li> </ul>	<ul style="list-style-type: none"> <li>- North Toronto (TC)</li> <li>- Oakville (MH)</li> <li>- Durham West (CE)</li> <li>- Dufferin (CW)</li> <li>- Mid-East Toronto (TC)</li> <li>- Wellington (Waterloo-Wellington)</li> <li>- Western York Region (C)</li> <li>- Western Ottawa (Ch)</li> </ul>

- Close to 72% of Ontarians reported very good or excellent mental health. Compared to Ontario, a significantly lower proportion of residents of the **North East** LHIN reported their mental health as very good or excellent. The proportion of those reporting very good or excellent mental health declined between 2005-2014 in Ontario, and for most LHINs, with the exception of **Central West** LHIN.
  - Compared to Ontario, *very good* or *excellent* mental health was significantly different in the following sub-regions:

Significantly Lower <i>Very Good or Excellent</i> Mental Health	Significantly Higher <i>Very Good or Excellent</i> Mental Health
<ul style="list-style-type: none"> <li>- Peterborough City and County (CE)</li> <li>- City of Thunder Bay (NW).</li> </ul>	<ul style="list-style-type: none"> <li>- Oakville (MH)</li> <li>- Milton (MH)</li> <li>- Western York Region (C)</li> <li>- Durham West (CE)</li> <li>- Bramalea (CW)</li> <li>- Elgin (SW)</li> </ul>

- 22% of Ontarians reported that most days were “quite a bit” or “extremely” stressful. **Erie St. Clair** LHIN residents were the least likely to rate most of their days as “quite a bit” or “extremely” stressful.

## Prevention

- 90% of Ontarians reported having a regular medical doctor, ranging from 85% in the **North West** LHIN to 93% in **Hamilton Niagara Haldimand Brant** LHIN. The rate was significantly lower in **Toronto Central** LHIN, **North West** LHIN and **North East** LHIN.
- Compared to Ontario as a whole, the proportion of people with a regular medical doctor was significantly higher in the following sub-regions:
  - **Halton Hills (MH)**
  - **Northumberland County (CE)**
  - **Oxford (SW)**
  - **Cambridge-North Dumfries (Waterloo-Wellington)**
  - **Niagara North West (HNHB)**
  - **South Georgian Bay (NSM)**
  - **Dufferin (CW)**
  - **Haldimand Norfolk (HNHB)**
- The proportion of people having a medical doctor was significantly lower in the sub-regions of:
  - **District of Thunder Bay (NW)**
  - **District of Kenora (NW)**
  - **Central Ottawa (Ch)**
  - **Nipissing-Temiskaming (NE)**
  - **Sudbury-Manitoulin-Parry Sound (NE)**
  - **Mid-East Toronto (TC)**
  - **Cochrane (NE)**
  - **Mid-West Toronto (TC)**
- 33% of people received a flu shot in the year preceding the survey.
- Flu immunization rates were highest for Southeast LHIN, **Erie St. Clair** LHIN, and **Champlain** LHINs and lowest for **Central West** LHIN, **Mississauga Halton** LHIN and **Waterloo Wellington** LHINs.

## Risk Factors

- Approximately 17% of Ontario residents reported daily or occasional smoking in 2015-16. Smoking rates varied by LHIN from 13% in **Mississauga Halton** LHIN to 24% in the **North East** LHIN. Smoking rates have been declining over time.
- Significantly higher rates of daily or occasional smoking existed in the **North East** and **North West** LHIN while the lowest rates were in **Mississauga Halton** LHIN and **Central** LHIN. Higher rates of exposure to second-hand smoke in the home were found in the **South East**, **North East**, and **North West** LHINs. Significantly lower rates of both smoking and second-hand exposure were reported in the **Central** LHIN.
- Compared to Ontario, significantly higher smoking rates were found in the sub-regions of:
  - **Peterborough City and County (CE)**
  - **Quinte (SE)**
  - **Cochrane (NE)**
  - **Couchiching (NSM)**
  - **Brant (HNHB)**
  - **Rural Kent (ESC)**
  - **Sudbury-Manitoulin-Parry Sound (NE)**
  - **Cambridge-North Dumfries (Waterloo-Wellington)**

- 18% of Ontarians reported heavy drinking. Heavy drinking was defined as having consumed 5 or more drinks for males or 4 or more for women on at least one occasion, at least once a month during the past year. Heavy drinking rates ranged from 11% in **Central** LHIN to 24% in **North Simcoe Muskoka** and **North West** LHINs. Heavy drinking rates were also significantly higher in the **North East** LHIN and **South West** LHIN.
- Approximately 3 in 5 adult Ontarians (61%) were either overweight (35%) or obese (26%). Overweight and obesity were rising over time in Ontario, and many of the LHINs.
- Obesity rates were significantly higher than the Ontario rate of 26% in the **North East** (34%), **North West** (34%), **Erie St-Clair** (35%), and **South East** (35%) LHINs.
- With respect to Ontario's sub-regions, adult rates of being either overweight or obese were significantly higher than Ontario in:
  - **Bolton-Caledon (CW)**
  - **District of Thunder Bay (NW)**
  - **Rural Kent (ESC)**
  - **Niagara North West (HNHB)**
  - **Sudbury-Manitoulin-Parry Sound (NE)**
  - **Muskoka (NSM)**
  - **Rural Frontenac, Lennox & Addington (SE)**
  - **City of Thunder Bay (NW)**
- Four of five **North West** LHIN sub-regions (**District of Kenora**, **District of Rainy River**, **District of Thunder Bay**, and **City of Thunder Bay**) had significantly higher rates of overweight or obesity compared to Ontario.
  - By contrast, four of five sub-regions in **Toronto Central** had significantly lower rates of overweight or obesity. Rates were also significantly lower in **Eastern and Western York Region (C)**; **Scarborough North (CE)**; and **Central Ottawa (Ch)** sub-regions.
- 42% of Ontarians were physically inactive—now defined as less than 150 minutes of moderate to vigorous activity per week. The highest rates of inactivity were in **Central** and **Central West** LHINs while the lowest rates of inactivity were in **Toronto Central** LHIN and **Champlain** LHIN. At the sub-region level, rates of inactivity were significantly higher in:
  - **Scarborough North (CE)**
  - **Brampton (CW)**
  - **Scarborough South (CW)**
  - **North York West (C)**
  - **North Etobicoke Malton West Woodbridge (CW)**
  - **East Mississauga (MH)**
  - **Bramalea (CW)**
- 72% of Ontario residents did not consume enough fruits and vegetables (i.e., had fewer than 5 servings of fruits or vegetables daily). Compared to Ontario, the proportion of residents consuming less than 5 servings per day was significantly higher in the following sub-regions:
  - **Scarborough North (CE)**
  - **Rural Kent (ESC)**
  - **Durham North East (CE)**
  - **Windsor (ESC)**
  - **Couchiching (NSM)**
  - **Algoma (NE)**
  - **City of Thunder Bay (NW)**

## General Health, Risk Factors, and Prevention

	Ontario 2015-16	Trend over time (2005-14)	Range across the LHINs† (2015-16)	Range across all sub- regions (2011-14)*
<b>General Health</b>				
General health, % of the population age 12+ with...				
Very good or excellent self-perceived health	61%		55-67%	49-74%
Very good or excellent self-perceived mental health	71%	Unfavourable	66-74%	65-81%
Days that are 'quite a bit' or 'extremely' stressful (age 15+)	22%		18-26%	NA
<b>Prevention</b>				
Use of Health Services and Preventive Care, % of the population age 12+ who...				
Have a regular medical doctor	90%		85-93%	77-98%
Have consulted with family doctor/general practitioner (past yr)	74%		67-78%	NA
Received flu shot in the past year	33%		26-42%	NA
<b>Risk Factors</b>				
Risk factors, % of the population age 12+ who...				
Are daily or occasional smokers	17%	Favourable	13-24%	11-27%
Are exposed to second-hand smoke in the home	6.9%	Not available	4.5-12.0%	NA
Are heavy drinkers	18%		11-24%	NA
Are overweight or obese (age 18+)	61%	Unfavourable	46-69%	37-68%
Are overweight (age 18+)	35%		32-39%	26-52%
Are obese (age 18+)	26%	Unfavourable	14-36%	10-37%
Are physically inactive	42%	Unfavourable	30-50%	28-62%
Consume < 5 servings of fruits/vegetables daily	72%	Unfavourable	66-74%	41-73%

\*2011-2014 sub-region rates are not directly comparable with LHIN and Ontario rates from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

### Prevalence, mortality, hospital separations and hospital days of stay for selected chronic conditions

This section and the accompanying workbook contain analysis based on chronic conditions from Canadian Community Health Survey (CCHS) (self-reported prevalence); the prevalence of selected chronic conditions (diabetes, congestive heart failure (CHF), and chronic obstructive pulmonary disease (COPD) from administrative data sources; hospitalizations for selected chronic conditions; and an analysis of health care users, complex patients and high cost users.

Detailed analysis is provided in the accompanying Excel workbook:

#### **4 Chronic conditions (2018).xlsx**

The excel workbook contains:

1. **LHIN\_CCHS, LHIN\_trend\_CCHS and Sub-region\_CCHS tabs:**
  - a. Prevalence of chronic conditions (CCHS): this includes analysis by LHIN (2015-16), sub-region (2011-2014) and LHIN trends (2005-2014).
2. **Admin\_Prev\_LHIN and Admin\_prev\_SR tabs:**
  - a. Prevalence of diabetes: counts and rates, age 18+ by sex, by LHIN of patient (as of April 1 2014, April 1 2015, and April 1 2016); counts and rates, age 18+, total population, by sub-region of patient (as of April 1, 2015)
  - b. Prevalence of CHF: counts and rates, age 40+ by sex, by LHIN of patient (2013/14-2015/16); counts and rates, age 40+, total population, by sub-region of patient (2015/16)
  - c. Prevalence of COPD: counts and rates, age 35+ by sex, by LHIN of patient (2013/14-2015/16); counts and rates, age 40+, total population by, sub-region of patient (2015/16)
3. **LHIN hospitalizations and Sub-region hospitalizations tabs:**
  - a. Acute hospitalizations for: asthma, cardiovascular disease, cerebrovascular disease, COPD, diabetes, hypertension, ischemic heart disease, lower respiratory disease, respiratory disease, stroke :
  - b. -counts and crude rates-total population and by sex, age-standardized rates-total population and by sex, by LHIN of patient residence (2014-2016 calendar years)
  - c. -counts and crude rates-total population, age-standardized rates-total population, by sub-region of patient residence (2014-2016 calendar years)
4. **LHIN HCU and complex patients and sub-region HCU and complex patients tabs:**
  - a. Total patients (all health care users), complex patients (with 4+ conditions), high cost users (highest 5%): counts by age group, sex, and mean cost per user, by LHIN of patient and sub-region of patient (2015/16)

**Prepared June 2018**

**Excel workbooks provided by:** *Health Analytics Branch, Ministry of Health and Long Term Care*  
**Analysis & interpretation prepared by:** *Eugene Wong and Xun Wang, Central LHIN*

- 40% of Ontario residents (aged 12+) had one or more chronic conditions in 2015/16. The highest rate was in **North East** LHIN (49%) and the lowest rate was in **Toronto Central** LHIN (34%).
- 16% of Ontario residents had two or more chronic conditions in 2015/16. The highest rate was in **North East** LHIN (22%) and the lowest rate was in **Toronto Central** LHIN (12%) in **North East** LHIN.
- In 2015/16, the 3 self-reported chronic conditions with the highest prevalence rates in Ontario were arthritis, high blood pressure, and asthma.
  - The prevalence rate for arthritis (aged 12+) was 21%. The highest rate was in **North East** LHIN (28%) and the lowest rate was in **Central** LHIN (16%).
  - The prevalence rate of high blood pressure (Aged 12+) was 18%. **North East** LHIN had the highest rate (25%) and the lowest rate was in **Toronto Central** LHIN (15%).
  - The prevalence rate for asthma (aged 12+) was 8.7%. The highest rate was in **Champlain** LHIN (11%) and the lowest rate was in **Toronto Central** LHIN (6.0 %). *(Note: The rate of **Toronto Central** LHIN has high sampling variability and should be used with caution).*
- Below are the prevalence rates of selected conditions based on administrative data for 2016:
  - The prevalence rate of diabetes (Aged 18+) was 13%. **Central West** LHIN had the highest rate at 16% and **Toronto Central** LHIN had the lowest rate at 11%.
  - The prevalence rate of congestive heart failure (Aged 40+) was 4.2%. **North East** LHIN had the highest rate at 5.3% and **Mississauga Halton** LHIN had the lowest rate at 3.3%.
  - The prevalence rate of chronic obstructive pulmonary disease (Aged 35+) was 4.3%. **North East** LHIN had the highest rate at 7.4% and **Central West** LHIN had the lowest rate at 2.5%.
- In 2016, the highest 3 chronic conditions with the highest hospital separations (age-standardized rate) were cardiovascular disease, respiratory disease and ischemic heart disease.
  - The hospital separation rate for cardiovascular disease was 917 per 100,000 population. The highest rate was in **North East** LHIN (1,341) and the lowest rate was in **Central** LHIN (751).
  - The hospital separation rate for respiratory disease was 600 per 100,000 population. The highest rate was in **North West** LHIN (1,085) and the lowest rate was in **Central** LHIN (449).
  - The hospital separation rate for ischemic heart disease was 315 per 100,000 population. The highest rate was in **North East** LHIN (568) and the lowest rate was in **Toronto Central** LHIN (227).
- 5.8% of health care users in Ontario are patients with complex needs (having 4 or more chronic conditions). The highest rate was in **Erie St. Clair** LHIN (7.3%) and the lowest rate was in **Waterloo Wellington** LHIN (4.6%).
- The mean health care cost per user was \$2,750 in 2015/16. The cost for complex patients (4+ conditions) was 8 times higher (\$22,050) and the cost for a high cost user (Top 5%) was 14 times higher (\$37,700).



## Chronic Conditions, Complex Patients

Condition	Ontario	Range Across LHINs
<b>Self-reported prevalence (2015-16), rate per 100, age 12+</b>		
Arthritis	20.6	(16.4 - 28.3)
Asthma	8.7	(6.0 - 11)
Cancer	1.3	(0.9 - 2.0)
Chronic Obstructive Pulmonary Disease (COPD) (age 35+)	4.0	(2.1 - 8.4)
Diabetes	7.4	(5.4 - 10.4)
High blood pressure	18.2	(15.3 - 24.6)
Heart disease	4.6	(2.5 - 6.8)
Suffer from effects of stroke	1.3	(0.7 - 2.3)
Have a chronic condition	39.6	(34 - 49.3)
Have multiple chronic conditions <sup>1</sup>	16.2	(11.7 - 22.2)
<i>1 - Of the selected conditions on this list</i>		
<b>Prevalence of selected conditions based on administrative data, rate per 100</b>		
<b>Diabetes, 2016, age 18+, Total</b>	<b>13.0</b>	<b>(10.5 - 15.7)</b>
Diabetes, 2016, age 18+, Female	12.2	(10.1 - 15.0)
Diabetes, 2016, age 18+, Male	13.8	(10.9 - 16.6)
<b>CHF, 2015/16, age 40+, Total</b>	<b>4.2</b>	<b>(3.3 - 5.3)</b>
CHF, 2015/16, age 40+, Female	3.9	(3.0 - 4.7)
CHF, 2015/16, age 40+, Male	4.5	(3.5 - 5.9)
<b>COPD, 2015/16, age 35+, Total</b>	<b>4.3</b>	<b>(2.5 - 7.4)</b>
COPD, 2015/16, age 35+, Female	4.1	(2.3 - 7.1)
COPD, 2015/16, age 35+, Male	4.6	(2.8 - 7.7)
<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>		
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	34.3	(25.5 - 54.2)
Cardiovascular disease	916.9	(750.6 - 1340.6)
Cerebrovascular disease	133.2	(111.3 - 179.6)
COPD	171.8	(84.8 - 310.7)
Diabetes	100.2	(64.2 - 252.8)
Hypertension	18.0	(11.7 - 29.9)
Ischemic heart disease	314.8	(227.4 - 568.1)
Lower respiratory disease	208.9	(116.6 - 363.8)
Respiratory disease	599.7	(449 - 1084.8)
Stroke	112.5	(95.7 - 156.6)
<b>Complex Patients and High Cost Users, 2015/16</b>		
<b>Mean health care cost per user \$</b>	<b>\$ 2,750</b>	<b>(2,150 – 3,700)</b>
<b>Complex Patients (4+ conditions)</b>		
<b>Mean health care cost per complex patient \$</b>	<b>\$ 22,050</b>	<b>(18,300 – 26,900)</b>
<b># of patients that are complex</b>	<b>680,115</b>	<b>(12,435 – 84,285)</b>
<b>% of all patients (health care users) that are complex</b>	<b>5.8%</b>	<b>(4.6% - 7.3%)</b>
<b>High Cost Users (Highest 5%) #</b>		
<b>Mean health care cost per high cost user \$</b>	<b>\$ 37,700</b>	<b>(35,650 – 42,400)</b>
<b># of patients that are high cost users</b>	<b>581,670</b>	<b>(13,355 – 70,570)</b>
<b>% of patients that are high cost users</b>	<b>5.0%</b>	<b>(3.6% - 7.1%)</b>

## Human Resources

This chapter and the accompanying workbook contain analysis of Health Professionals Human Resources for Ontario and LHINs based on the submissions to the Health Professions Database (HPDB) and the Ontario Physician Human Resources Data Centre (OPHRDC) between 2013 and 2016.

- The HPDB captures the number of 'active' health professionals who are registered by their respective regulatory College to practice any capacity (clinical, research, teaching, health promotion, etc.). This data does not include members who hold an educational registration (e.g. trainee or student graduate waiting to complete the necessary registration exam).
- The HPDB collects data for up to three employment sites/positions for each active health professional. The enclosed data tables include health professionals who reported their first employment site/position to be in the specific LHIN listed. The first site/position is not necessarily a 'primary practice location'. This method is used to avoid double counting.
- Provider to population ratios are crude measures of demand/need. These ratios assume all providers practice in the same manner and the entire population has the same health needs. These ratios do not tell us about, how many hours of service are provided, specific health needs of the population, geographical distribution, types of services provided, mix between clinical/non-clinical work, etc.
- Due to discrepancies in reporting timelines, and in an effort to keep the data source consistent, all nursing data has been obtained from the HPDB. Please note, previous years' data has been replaced by the HPDB data, resulting in 2013-2016 data originating from the same source.
- Data pertaining to dentists have been removed due to poor data quality.
- Ontario postal codes that are not accurately mapped to a LHIN are reported as 'Unknown.'

Detailed analysis is provided in the accompanying Excel workbook:

**HHR Chapter\_REVISED (2018-06-19).xlsx**

The excel workbook contains:

1. *LHIN Summary – summary data on numbers and rates per 100,000 population of physicians, nurses, and other regulated health professionals by LHIN*
2. *Physicians – summary data on numbers and rates per 100,000 population of physicians by LHIN and by year (2013-2016)*
3. *Physicians by Age – summary data on numbers and proportion of family physicians by age category and LHIN for years 2013 and 2016*
4. *Nurses – summary data on numbers and rates per 100,000 population of nurses by LHIN and by year (2013-2016)*
5. *Allied Health – summary data on numbers and rates per 100,000 population of other regulated health professionals by LHIN and by year (2013-2016)*

**Prepared July 2018**

**Excel workbooks provided by:** Health Analytics Branch, Ministry of Health and Long Term Care  
**Analysis & interpretation prepared by:** Neman Khokhar, North Simcoe Muskoka LHIN

## Physicians

- In 2016, there were approximately 29,633 physicians in Ontario.
  - This represents the equivalent of approximately 212 physicians for every 100,000 persons in Ontario.
  - The number of physicians in Ontario increased by over 9% between 2013 and 2016 with higher growth occurring among family medicine physicians compared to specialists.
- **Toronto Central** LHIN had the most physicians of all types per capita among all LHINs.
- While **Toronto Central** LHIN had more family medicine physicians per capita in 2013, there was a marked enough increase in family medicine physicians in the **North West** LHIN from 2013 to 2016 that these two LHINs had the highest rate per 100,000 population among LHINs.
- Between 2013 and 2016, there was a 52.1% increase in young family physicians (<30 years of age) and a 16% increase in the number of family physicians at or beyond the age of retirement (65 years of age or older).
- Approximately 14% of family physicians were at or beyond the age of retirement (65 years of age or older).

## Nurses

- In 2016, there were 140,762 total nurses in Ontario.
- The total number of nurses increased by 4.5% between 2013 and 2016.
  - While there was a slight decrease in the number of Registered Nurses between 2013 and 2016, there were substantial increases in the number of Registered Practical Nurses (16% increase) and Nurse Practitioners (30% increase) during the same time period.
- In 2016, there were approximately 1,007 nurses for every 100,000 residents of Ontario.

## Other Allied Health Professionals

- Between 2013 and 2016, the greatest growth in the number of allied health professionals was among pharmacists (an increase of nearly 21%) and midwives (an increase of approximately 19%).
  - The **highest** density of pharmacists (rate per 100,000 population) occurred in **Toronto Central** LHIN, Mississauga LHIN and **Central** LHIN. The **lowest** density of pharmacists occurred in **Central West** LHIN, Waterloo-Wellington LHIN, and **North Simcoe Muskoka** LHIN.
  - For Midwives, the **highest** density occurred in Waterloo-Wellington LHIN, **North West** LHIN and **Toronto Central** LHIN.
- There was notable growth (between 8-11%) in the number of occupational therapists, optometrists and psychologists in Ontario between 2013 and 2016.
- Opticians experienced a 5% reduction in not only their raw numbers but also a nearly 8% reduction in the number of opticians per capita.

ONTARIO					
Physicians	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Total Family Medicine Physicians</b>					
Number of family medicine physicians	12,635	13,131	13,441	13,861	9.7%
Rate per 100,000 population	93.2	96.0	97.4	99.1	6.3%
<b>Total Specialists</b>					
Number of specialists	14,490	14,956	15,364	15,772	8.8%
Rate per 100,000 population	106.9	109.3	111.4	112.8	5.5%
<b>Total Physicians</b>					
Number of total physicians	27,125	28,087	28,805	29,633	9.2%
Rate per 100,000 population	200.2	205.2	208.8	211.9	5.9%
<b>Family Physicians, by age group - count</b>					
Age <30	251			383	52.6%
Age 30-64	10,649			11,469	7.7%
Age 65-74	1,497			1,723	15.1%
Age 75+	238			286	20.2%
Grand Total	12,635			13,861	9.7%
Age 65+	1,735			2,009	15.8%
<b>Family Physicians, by age group – percent</b>					
Age <30	2.0%			2.8%	39.1%
Age 30-64	84.3%			82.7%	-1.8%
Age 65-74	11.8%			12.4%	4.9%
Age 75+	1.9%			2.1%	9.5%
Age 65+	13.7%			14.5%	5.6%
<b>ONTARIO</b>					
Nurses	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Registered Nurses</b>					
Number of RNs	95,372	95,606	95,606	94,971	-0.4%
Rate per 100,000 population	703.5	698.6	692.9	679.2	-3.5%
<b>Registered Practical Nurses</b>					
Number of RPN nurses	37,138	38,978	41,348	42,954	15.7%
Rate per 100,000 population	274.0	284.8	299.7	307.2	12.1%
<b>Nurse Practitioners</b>					
Number of NP nurses	2,185	2,391	2,632	2,837	29.8%
Rate per 100,000 population	16.1	17.5	19.1	20.3	25.3%
<b>Total Nurses</b>					
Total Nurse - Number of nurses	134,695	136,975	139,586	140,762	4.5%
Total Nurse - Rate per 100,000 population	993.6	1000.9	1011.7	1006.7	1.3%

ONTARIO					
Other Regulated Health Professionals	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Audiologists</b>					
Audiologist - Number	625	624	625	667	6.7%
Audiologist - Rate per 100,000 population	4.6	4.6	4.5	4.8	4.3%
<b>Midwives</b>					
Midwife - Number	589	652	622	699	18.7%
Midwife - Rate per 100,000 population	4.3	4.8	4.5	5.0	15.1%
<b>Occupational Therapists</b>					
Occupational Therapist - Number	4,941	5,043	5,247	5,460	10.5%
Occupational Therapist - Rate per 100,000 population	36.4	36.9	38.0	39.0	7.1%
<b>Opticians</b>					
Optician - Number	2,688	2,603	2,720	2,561	-4.7%
Optician - Rate per 100,000 population	19.8	19.0	19.7	18.3	-7.6%
<b>Optometrists</b>					
Optometrist - Number	2,058	2,152	2,175	2,242	8.9%
Optometrist - Rate per 100,000 population	15.2	15.7	15.8	16.0	5.6%
<b>Pharmacists</b>					
Pharmacist - Number	11,866	12,952	13,654	14,344	20.9%
Pharmacist - Rate per 100,000 population	87.5	94.6	99.0	102.6	17.2%
<b>Psychologists</b>					
Psychologist - Number	3,130	3,256	3,319	3,392	8.4%
Psychologist - Rate per 100,000 population	23.1	23.8	24.1	24.3	5.1%
<b>Speech-Language Pathologists</b>					
Speech-Language Pathologist - Number	2,772	2,823	2,775	2,841	2.5%
Speech-Language Pathologist - Rate per 100,000 population	20.4	20.6	20.1	20.3	-0.7%

## Primary Care

### Notes:

This chapter and the accompanying workbook presents analysis of primary care access, based on the Health Care Experience Survey (HCES). Selected measures are provided at both the LHIN and sub-region levels, and data trends (2013-2017) are shown for LHINs.

Detailed analysis is provided in the accompanying Excel workbook:

### 6 Primary Care (2018)

The excel workbook contains:

1. Analysis of selected measures from the Health Care Experience Survey on the following tabs:
  - HCES\_LHIN 2017: analysis of selected HCES measures at the LHIN level, for 2017.
  - HCES\_LHIN\_trend: estimates for 2013, 2014, 2015, 2016, and 2017, at the LHIN level, for trend analysis.
  - HCES\_LHIN for SR comp: LHIN level results based on a combined sample (Jan. 2014 - Sept. 2017) - provided ONLY to allow comparison with the sub-region level results on the next tab.
  - HCES\_SR: sub-region results, based on analysis of data collected between Jan. 2014 - Sept. 2017.

The HCES is an on-going telephone-based survey of Ontarians aged 16 years and older; there are approximately 11,200 respondents in every 12-month period. The HCES is focused on primary care and is conducted in both English and French. Respondents are randomly sampled and are asked questions about their own access and experiences as well as questioned on behalf of children (aged 0-15) living in the household. The HCES is administered by the Institute for Social Research at York University. Every Ontarian has the potential to be included in the HCES if they live in a household with a telephone – whether a landline or a cell phone – where at least one resident in the household has a valid health card. This means the survey includes respondents who:

- are enrolled to a primary care physician or see a solo fee-for-service physician,
- see a nurse practitioner,
- are patients of Community Health Centres and Aboriginal Health Access Centres,
- utilize walk-in clinics or emergency departments for their primary care needs,
- do not use primary care services, either by choice or by circumstance.

All HCES estimates included in the report have been weighted to account for the design characteristics of the survey. All estimates based on fewer than 5 respondents are suppressed and noted as NR (not releasable).

Lower and upper 95% confidence intervals (LCI, UCI) have been provided for all rates. These are used to indicate that the true value of the rate falls between the LCI and UCI 19 times out of 20.

Data presented was collected between January 2014 and September 2017 for the LHIN and sub-region level analysis. In order to allow for large enough samples to be reported at the sub-region level, multiple years of data were combined.

Data presented for the LHIN 2017 analysis was collected between January 2017 and December 2017; data presented for the HCES LHIN trend analysis was collected between January 2013 and December 2017.

### Prepared August 2018

**Excel workbooks provided by:** Health Analytics Branch, Ministry of Health and Long Term Care

**Analysis & interpretation prepared by:** *Brianne Wood, North West LHIN*

### Primary Care Enrolment

- Patient enrolment models (PEMs) are primary care physician payment models that involve comprehensive care-based group practice and patient rostering (i.e., enrolment with a particular primary care provider group).
- Almost 11 million Ontarians were enrolled with a PEM as of 2016/2017 fiscal year, of which approximately 3.3 million Ontarians were enrolled with a Family Health Team.
- More than 622,000 Ontarians were virtually enrolled in a patient enrolment model.
- Among all Ontario primary care patients, almost 50% were enrolled with a Family Health Organization (FHO), and almost one-quarter (24%) were enrolled with a Family Health Group [not a Family Health Team].
- Twenty-three percent (23%) of Ontarians were associated with a fee-for-service primary care provider [which is not PEM].
- Across Ontario, there were 805 practices where almost 11,000 physicians worked, and most physicians worked in a Family Health Group PEM

### Primary Care Models

<b>CCM</b>	Comprehensive Care Models are solo-practitioners who enrol patients but are paid primarily on a fee-for-service basis
<b>FFS</b>	Fee-for-service models
<b>FHG</b>	Family Health Group Models where physicians are paid Fee-for-Service plus incentives.
<b>FHN</b>	Family Health Network
<b>FHO</b>	Family Health Organization
<b>RNPGA</b>	Rural and Northern Physician Group Agreement
<b>Other</b>	Includes groups with alternate payment type agreements for primary care services to a specific patient type such as HIV or palliative, comprehensive primary care for remote First Nations communities, or primary care in a specific location such as Sault Ste Marie or Moose Factory.

**Number of LHIN residents enrolled in Patient Enrolment Models (PEMs), by Family Health Team (FHT) status, by patient residence, 2016/2017**

LHIN of provider	Total # enrolled	Patients enrolled, by Primary Care Models											
		Blended salary	CCM	FFS – not enrolled	FHG	FHN		FHO		RNPGA		Other	
		FHT #	Non-FHT #	Non-FHT #	Non-FHT #	Non-FHT #	FHT #	Non-FHT #	FHT #	Non-FHT #	FHT #	Non-FHT #	FHT #
Erie St. Clair	662,793	12,805	21,310	156,436	151,269	15	13,217	126,224	181,327	18	43	121	10
South West	968,940	16,047	22,728	200,948	101,649	4,613	35,357	253,916	333,235	42	118	263	26
Waterloo Wellington	793,202	8,550	12,802	168,057	29,558	31	4,016	304,669	265,215	30	59	186	29
HNHB	1,469,247	6,775	38,909	282,218	293,686	23	47,425	412,777	386,855	43	89	385	59
Central West	985,664	1,718	35,803	212,233	474,083	<5	194	133,058	128,077	15	13	237	228
Mississauga Halton	1,245,269	1,017	42,978	285,085	467,360	9	278	307,608	139,625	14	33	533	729
Toronto Central	1,266,256	431	32,022	395,519	307,930	15	472	347,599	166,996	24	55	11,029	4,168
Central	1,912,729	5,502	82,084	456,163	725,886	11	299	463,506	177,839	18	45	1,014	362
Central East	1,618,054	4,293	49,020	343,647	409,954	5	1,338	508,086	300,625	31	87	811	154
South East	507,254	9,418	13,492	100,932	40,611	<5	6,063	141,445	187,066	8	61	218	7,943
Champlain	1,353,093	17,264	33,325	337,315	253,251	<5	553	451,034	259,832	42	174	196	101
N Simcoe Muskoka	489,094	233	4,061	89,065	46,346	15	36,321	48,601	263,851	103	229	234	37
North East	578,130	1,734	6,011	145,262	37,866	17	51,588	136,025	95,396	14,833	27,730	61,652	20
North West	244,173	24	6,331	82,555	47,642	<5	17,821	15,155	49,673	4,240	17,812	2,909	8
Unknown	11,309	11	95	7,124	3,081	0	6	544	438	<5	<5	6	0
<b>Ontario</b>	<b>14,105,207</b>	<b>85,822</b>	<b>400,971</b>	<b>3,262,559</b>	<b>3,390,172</b>	<b>4,764</b>	<b>214,948</b>	<b>3,650,247</b>	<b>2,936,050</b>	<b>19,462</b>	<b>46,549</b>	<b>79,796</b>	<b>13,867</b>

*\*see Primary Care Models table for description of group types*



**Percent of LHIN residents enrolled in Patient Enrolment Models (PEMs), by Family Health Team (FHT) status, by patient residence, 2016/2017**

LHIN of provider	Total # enrolled	Patients enrolled, by Primary Care Models											
		Blended salary	CCM	FFS – not enrolled	FHG	FHN		FHO		RNPGA		Other	
		FHT %	Non-FHT %	Non-FHT %	Non-FHT %	Non-FHT %	FHT %	Non-FHT %	FHT %	Non-FHT %	FHT %	Non-FHT %	FHT %
Erie St. Clair	662,793	1.9%	3.2%	23.6%	22.8%	0.0%	2.0%	19.0%	27.4%	0.0%	0.0%	0.0%	0.0%
South West	968,940	1.7%	2.3%	20.7%	10.5%	0.5%	3.6%	26.2%	34.4%	0.0%	0.0%	0.0%	0.0%
Waterloo Wellington	793,202	1.1%	1.6%	21.2%	3.7%	0.0%	0.5%	38.4%	33.4%	0.0%	0.0%	0.0%	0.0%
HNHB	1,469,247	0.5%	2.6%	19.2%	20.0%	0.0%	3.2%	28.1%	26.3%	0.0%	0.0%	0.0%	0.0%
Central West	985,664	0.2%	3.6%	21.5%	48.1%	0.0	0.0%	13.5%	13.0%	0.0%	0.0%	0.0%	0.0%
Mississauga Halton	1,245,269	0.1%	3.5%	22.9%	37.5%	0.0%	0.0%	24.7%	11.2%	0.0%	0.0%	0.0%	0.1%
Toronto Central	1,266,256	0.0%	2.5%	31.2%	24.3%	0.0%	0.0%	27.5%	13.2%	0.0%	0.0%	0.9%	0.3%
Central	1,912,729	0.3%	4.3%	23.8%	38.0%	0.0%	0.0%	24.2%	9.3%	0.0%	0.0%	0.1%	0.0%
Central East	1,618,054	0.3%	3.0%	21.2%	25.3%	0.0%	0.1%	31.4%	18.6%	0.0%	0.0%	0.1%	0.0%
South East	507,254	1.9%	2.7%	19.9%	8.0%	0.0%	1.2%	27.9%	36.9%	0.0%	0.0%	0.0%	1.6%
Champlain	1,353,093	1.3%	2.5%	24.9%	18.7%	0.0%	0.0%	33.3%	19.2%	0.0%	0.0%	0.0%	0.0%
N Simcoe Muskoka	489,094	0.0%	0.8%	18.2%	9.5%	0.0%	7.4%	9.9%	53.9%	0.0%	0.0%	0.0%	0.0%
North East	578,130	0.3%	1.0%	25.1%	6.5%	0.0%	8.9%	23.5%	16.5%	2.6%	4.8%	10.7%	0.0%
North West	244,173	0.0%	2.6%	33.8%	19.5%	0.0%	7.3%	6.2%	20.3%	1.7%	7.3%	1.2%	0.0%
Unknown	11,309	0.1%	0.8%	63.0%	27.2%	0.0%	0.1%	4.8%	3.9%	0.0%	0.0%	0.1%	0.0%
Ontario	14,105,207	0.6%	2.8%	23.1%	24.0%	0.0%	1.5%	25.9%	20.8%	0.1%	0.3%	0.6%	0.1%

**For LHIN residents not enrolled in Patient Enrolment Models (PEMs), number virtually enrolled by Family Health Team (FHT) status, by patient residence 2016/2017**

LHIN of provider	Total # virtually enrolled		Patients enrolled, by Primary Care Models										
		Blended salary	CCM	FFS – not enrolled	FHG	FHN		FHO		RNPGA		Other	
		FHT #	Non-FHT #	Non-FHT #	Non-FHT #	Non-FHT #	FHT #	Non-FHT #	FHT #	Non-FHT #	FHT #	Non-FHT #	FHT #
Erie St. Clair	156,436	446	2,616	125,598	14,804	0	270	6,395	6,305	0	0	0	0
South West	200,948	137	1,897	168,296	8,843	345	555	11,929	8,930	5	<5	13	0
Waterloo Wellington	168,057	30	1,309	138,698	2,601	<5	71	16,475	8,862	<5	<5	0	0
HNHB	282,218	101	4,562	224,153	18,720	0	1,733	19,991	12,936	<5	5	8	0
Central West	212,233	9	4,756	154,174	42,040	0	11	6,137	5,088	<5	<5	0	8
Mississauga Halton	285,085	7	6,119	219,461	41,229	<5	21	13,800	4,420	0	<5	12	9
Toronto Central	395,519	12	4,432	330,546	32,405	<5	37	20,641	6,983	<5	<5	278	182
Central	456,163	156	9,413	366,732	53,018	0	22	20,855	5,866	<5	<5	77	17
Central East	343,647	161	6,341	263,832	36,765	0	88	24,873	11,543	<5	5	30	0
South East	100,932	1,031	1,536	85,790	2,279	<5	141	5,684	4,086	<5	6	272	101
Champlain	337,315	245	4,047	284,931	21,276	<5	27	20,112	6,656	<5	11	0	0
N Simcoe Muskoka	89,065	9	425	71,459	3,271	<5	1,480	2,574	9,798	8	15	23	0
North East	145,262	36	744	125,873	4,411	<5	1,433	6,011	4,001	822	770	1,153	0
North West	82,555	0	1,361	74,142	2,421	0	688	452	1,691	158	1,249	390	0
Unknown	7,125	0	33	6,629	231	0	16	135	81	0	0	0	0
<b>Ontario</b>	<b>3,262,559</b>	<b>2,380</b>	<b>49,591</b>	<b>2,640,313</b>	<b>284,314</b>	<b>354</b>	<b>6,593</b>	<b>176,064</b>	<b>97,246</b>	<b>1,005</b>	<b>2,072</b>	<b>2,291</b>	<b>336</b>

**For LHIN residents not enrolled in Patient Enrolment Models (PEMs), percent virtually enrolled by Family Health Team (FHT) status, by patient residence 2016/2017**

LHIN of provider	Total # virtually enrolled	Patients enrolled, by Primary Care Models											
		Blended salary	CCM	FFS – not enrolled	FHG	FHN		FHO		RNPGA		Other	
		FHT %	Non-FHT %	Non-FHT %	Non-FHT %	Non-FHT %	FHT %	Non-FHT %	FHT %	Non-FHT %	FHT %	Non-FHT %	FHT %
Erie St. Clair	156,436	0.3%	1.7%	80.3%	9.5%	0.0%	0.2%	4.1%	4.0%	0.0%	0.0%	0.0%	0.0%
South West	200,948	0.1%	0.9%	83.8%	4.4%	0.2%	0.3%	5.9%	4.4%	0.0%	0.0%	0.0%	0.0%
Waterloo Wellington	168,057	0.0%	0.8%	82.5%	1.5%	0.0%	0.0%	9.8%	5.3%	0.0%	0.0%	0.0%	0.0%
HNHB	282,218	0.0%	1.6%	79.4%	6.6%	0.0%	0.6%	7.1%	4.6%	0.0%	0.0%	0.0%	0.0%
Central West	212,233	0.0%	2.2%	72.6%	19.8%	0.0%	0.0%	2.9%	2.4%	0.0%	0.0%	0.0%	0.0%
Mississauga Halton	285,085	0.0%	2.1%	77.0%	14.5%	0.0%	0.0%	4.8%	1.6%	0.0%	0.0%	0.0%	0.0%
Toronto Central	395,519	0.0%	1.1%	83.6%	8.2%	0.0%	0.0%	5.2%	1.8%	0.0%	0.0%	0.1%	0.0%
Central	456,163	0.0%	2.1%	80.4%	11.6%	0.0%	0.0%	4.6%	1.3%	0.0%	0.0%	0.0%	0.0%
Central East	343,647	0.0%	1.8%	76.8%	10.7%	0.0%	0.0%	7.2%	3.4%	0.0%	0.0%	0.0%	0.0%
South East	100,932	1.0%	1.5%	85.0%	2.3%	0.0%	0.1%	5.6%	4.0%	0.0%	0.0%	0.3%	0.1%
Champlain	337,315	0.1%	1.2%	84.5%	6.3%	0.0%	0.0%	6.0%	2.0%	0.0%	0.0%	0.0%	0.0%
N Simcoe Muskoka	89,065	0.0%	0.5%	80.2%	3.7%	0.0%	1.7%	2.9%	11.0%	0.0%	0.0%	0.0%	0.0%
North East	145,262	0.0%	0.5%	86.7%	3.0%	0.0%	1.0%	4.1%	2.8%	0.6%	0.5%	0.8%	0.0%
North West	82,555	0.0%	1.6%	89.8%	2.9%	0.0%	0.8%	0.5%	2.0%	0.2%	1.5%	0.5%	0.0%
Unknown	7,125	0.0%	0.5%	93.0%	3.2%	0.0%	0.2%	1.9%	1.1%	0.0%	0.0%	0.0%	0.0%
<b>Ontario</b>	<b>3,262,559</b>	<b>0.1%</b>	<b>1.5%</b>	<b>80.9%</b>	<b>8.7%</b>	<b>0.0%</b>	<b>0.2%</b>	<b>5.4%</b>	<b>3.0%</b>	<b>0.0%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>0.0%</b>

**Population enrolled in Patient Enrolment Models (PEMs), by Family Health Team (FHT) status, by LHIN where care is received, 2016/2017**

LHIN of provider	Total # enrolled	Patients enrolled, by Primary Care Models											
		Blended salary	CCM	FFS – not enrolled	FHG	FHN		FHO		RNPGA		Other	
		FHT #	Non-FHT #	Non-FHT #	Non-FHT #	Non-FHT #	FHT #	Non-FHT #	FHT #	Non-FHT #	FHT #	Non-FHT #	FHT #
Erie St. Clair	651,624	12,401	20,970	156,436	148,899	0	13,426	122,803	176,689	0	0	0	0
South West	954,002	15,603	21,454	200,948	98,603	4,764	39,300	247,315	326,015	0	0	0	0
Waterloo Wellington	748,435	11,410	11,791	168,057	7,874	0	0	286,163	263,140	0	0	0	0
HNHB	1,446,621	7,696	38,190	282,218	281,012	0	48,116	405,022	384,367	0	0	0	0
Central West	905,089	0	29,252	212,233	454,861	0	0	97,207	111,536	0	0	0	0
Mississauga Halton	1,265,092	0	46,208	285,085	467,450	0	0	318,464	147,885	0	0	0	0
Toronto Central	1,477,078	0	43,360	395,519	341,349	0	0	476,034	201,028	0	0	14,109	5,679
Central	1,809,019	6,715	75,041	456,163	661,577	0	0	395,153	214,194	0	0	176	0
Central East	1,733,671	3,210	54,145	343,647	542,655	0	0	541,622	248,392	0	0	0	0
South East	500,798	10,117	13,873	100,932	37,739	0	7,523	130,234	192,128	0	0	64	8,188
Champlain	1,362,025	17,127	33,250	337,315	253,602	0	0	457,665	263,066	0	0	0	0
N Simcoe Muskoka	439,503	0	1,770	89,065	14,610	0	37,480	25,851	270,727	0	0	0	0
North East	562,665	1,543	5,342	145,262	32,653	0	51,239	132,472	88,029	15,224	28,280	62,621	0
North West	242,461	0	6,325	82,555	47,288	0	17,864	14,242	48,854	4,238	18,269	2,826	0
Unknown	7,124	0	0	7,124	0	0	0	0	0	0	0	0	0
<b>Ontario</b>	<b>14,105,207</b>	<b>85,822</b>	<b>400,971</b>	<b>3,262,559</b>	<b>3,390,172</b>	<b>4,764</b>	<b>214,948</b>	<b>3,650,247</b>	<b>2,936,050</b>	<b>19,462</b>	<b>46,549</b>	<b>79,796</b>	<b>13,867</b>

**Percent enrolled in Patient Enrolment Models (PEMs), by Family Health Team (FHT) status, by LHIN where care is received, 2016/2017**

LHIN of provider	Total # enrolled	Patients enrolled, by Primary Care Models											
		Blended salary	CCM	FFS – not enrolled	FHG	FHN		FHO		RNPGA		Other	
		FHT %	Non-FHT %	Non-FHT %	Non-FHT %	Non-FHT %	FHT %	Non-FHT %	FHT %	Non-FHT %	FHT %	Non-FHT %	FHT %
Erie St. Clair	651,624	1.9%	3.2%	24.0%	22.9%	0.0%	2.1%	18.8%	27.1%	0.0%	0.0%	0.0%	0.0%
South West	954,002	1.6%	2.2%	21.1%	10.3%	0.5%	4.1%	25.9%	34.2%	0.0%	0.0%	0.0%	0.0%
Waterloo Wellington	748,435	1.5%	1.6%	22.5%	1.1%	0.0%	0.0%	38.2%	35.2%	0.0%	0.0%	0.0%	0.0%
HNHB	1,446,621	0.5%	2.6%	19.5%	19.4%	0.0%	3.3%	28.0%	26.6%	0.0%	0.0%	0.0%	0.0%
Central West	905,089	0.0%	3.2%	23.4%	50.3%	0.0%	0.0%	10.7%	12.3%	0.0%	0.0%	0.0%	0.0%
Mississauga Halton	1,265,092	0.0%	3.7%	22.5%	36.9%	0.0%	0.0%	25.2%	11.7%	0.0%	0.0%	0.0%	0.0%
Toronto Central	1,477,078	0.0%	2.9%	26.8%	23.1%	0.0%	0.0%	32.2%	13.6%	0.0%	0.0%	1.0%	0.4%
Central	1,809,019	0.4%	4.1%	25.2%	36.6%	0.0%	0.0%	21.8%	11.8%	0.0%	0.0%	0.0%	0.0%
Central East	1,733,671	0.2%	3.1%	19.8%	31.3%	0.0%	0.0%	31.2%	14.3%	0.0%	0.0%	0.0%	0.0%
South East	500,798	2.0%	2.8%	20.2%	7.5%	0.0%	1.5%	26.0%	38.4%	0.0%	0.0%	0.0%	1.6%
Champlain	1,362,025	1.3%	2.4%	24.8%	18.6%	0.0%	0.0%	33.6%	19.3%	0.0%	0.0%	0.0%	0.0%
N Simcoe Muskoka	439,503	0.0%	0.4%	20.3%	3.3%	0.0%	8.5%	5.9%	61.6%	0.0%	0.0%	0.0%	0.0%
North East	562,665	0.3%	0.9%	25.8%	5.8%	0.0%	9.1%	23.5%	15.6%	2.7%	5.0%	11.1%	0.0%
North West	242,461	0.0%	2.6%	34.0%	19.5%	0.0%	7.4%	5.9%	20.1%	1.7%	7.5%	1.2%	0.0%
Unknown	7,124	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Ontario</b>	<b>14,105,207</b>	<b>0.6%</b>	<b>2.8%</b>	<b>23.1%</b>	<b>24.0%</b>	<b>0.0%</b>	<b>1.5%</b>	<b>25.9%</b>	<b>20.8%</b>	<b>0.1%</b>	<b>0.3%</b>	<b>0.6%</b>	<b>0.1%</b>

**For the population not enrolled in Patient Enrolment Models (PEMs), number virtually enrolled by Family Health Team (FHT) status, by LHIN where care is received, 2016/2017**

LHIN of provider	Total # virtually enrolled	Patients enrolled, by Primary Care Models											
		Blended salary	CCM	FFS – not enrolled	FHG	FHN		FHO		RNPGA		Other	
		FHT #	Non-FHT #	Non-FHT #	Non-FHT #	Non-FHT #	FHT #	Non-FHT #	FHT #	Non-FHT #	FHT #	Non-FHT #	FHT #
Erie St. Clair	651,624	446	2,616	125,598	14,804	0	270	6,395	6,305	0	0	0	0
South West	954,002	137	1,897	168,296	8,843	345	555	11,929	8,930	<5	<5	13	0
Waterloo Wellington	748,435	30	1,309	138,698	2,601	<5	71	16,475	8,862	<5	<5	0	0
HNHB	1,446,621	101	4,562	224,153	18,720	0	1,733	19,991	12,936	<5	5	8	0
Central West	905,089	9	4,756	154,174	42,040	0	11	6,137	5,088	<5	<5	0	8
Mississauga Halton	1,265,092	7	6,119	219,461	41,229	<5	21	13,800	4,420	0	<5	12	9
Toronto Central	1,477,078	12	4,432	330,546	32,405	<5	37	20,641	6,983	<5	<5	278	182
Central	1,809,019	156	9,413	366,732	53,018	0	22	20,855	5,866	<5	<5	77	17
Central East	1,733,671	161	6,341	263,832	36,765	0	88	24,873	11,543	<5	5	30	0
South East	500,798	1,031	1,536	85,790	2,279	<5	141	5,684	4,086	<5	6	272	101
Champlain	1,362,025	245	4,047	284,931	21,276	<5	27	20,112	6,656	<5	11	0	0
N Simcoe Muskoka	439,503	9	425	71,459	3,271	<5	1,480	2,574	9,798	8	15	23	0
North East	562,665	36	744	125,873	4,411	<5	1,433	6,011	4,001	822	770	1,153	0
North West	242,461	0	1,361	74,142	2,421	0	688	452	1,691	158	1,249	390	0
Unknown	7,124	0	33	6,628	231	0	16	135	81	0	0	0	0
<b>Ontario</b>	<b>14,105,207</b>	<b>2,380</b>	<b>49,591</b>	<b>2,640,313</b>	<b>284,314</b>	<b>354</b>	<b>6,593</b>	<b>176,064</b>	<b>97,246</b>	<b>1,005</b>	<b>2,072</b>	<b>2,291</b>	<b>336</b>

**For the population not enrolled in Patient Enrolment Models (PEMs), number virtually enrolled by Family Health Team (FHT) status, by LHIN where care is received, 2016/2017**

LHIN of provider	Total # virtually enrolled	Patients enrolled, by Primary Care Models											
		Blended salary	CCM	FFS –not enrolled	FHG	FHN		FHO		RNPGA		Other	
		FHT %	Non-FHT %	Non-FHT %	Non-FHT %	Non-FHT %	FHT %	Non-FHT %	FHT %	Non-FHT %	FHT %	Non-FHT %	FHT %
Erie St. Clair	156,436	0.3%	1.7%	80.3%	9.5%	0.0%	0.2%	4.1%	4.0%	0.0%	0.0%	0.0%	0.0%
South West	200,948	0.1%	0.9%	83.8%	4.4%	0.2%	0.3%	5.9%	4.4%	0.0%	0.0%	0.0%	0.0%
Waterloo Wellington	168,057	0.0%	0.8%	82.5%	1.5%	0.0%	0.0%	9.8%	5.3%	0.0%	0.0%	0.0%	0.0%
HNHB	282,218	0.0%	1.6%	79.4%	6.6%	0.0%	0.6%	7.1%	4.6%	0.0%	0.0%	0.0%	0.0%
Central West	212,233	0.0%	2.2%	72.6%	19.8%	0.0%	0.0%	2.9%	2.4%	0.0%	0.0%	0.0%	0.0%
Mississauga Halton	285,085	0.0%	2.1%	77.0%	14.5%	0.0%	0.0%	4.8%	1.6%	0.0%	0.0%	0.0%	0.0%
Toronto Central	395,519	0.0%	1.1%	83.6%	8.2%	0.0%	0.0%	5.2%	1.8%	0.0%	0.0%	0.1%	0.0%
Central	456,163	0.0%	2.1%	80.4%	11.6%	0.0%	0.0%	4.6%	1.3%	0.0%	0.0%	0.0%	0.0%
Central East	343,647	0.0%	1.8%	76.8%	10.7%	0.0%	0.0%	7.2%	3.4%	0.0%	0.0%	0.0%	0.0%
South East	100,932	1.0%	1.5%	85.0%	2.3%	0.0%	0.1%	5.6%	4.0%	0.0%	0.0%	0.3%	0.1%
Champlain	337,315	0.1%	1.2%	84.5%	6.3%	0.0%	0.0%	6.0%	2.0%	0.0%	0.0%	0.0%	0.0%
N Simcoe Muskoka	89,065	0.0%	0.5%	80.2%	3.7%	0.0%	1.7%	2.9%	11.0%	0.0%	0.0%	0.0%	0.0%
North East	145,262	0.0%	0.5%	86.7%	3.0%	0.0%	1.0%	4.1%	2.8%	0.6%	0.5%	0.8%	0.0%
North West	82,555	0.0%	1.6%	89.8%	2.9%	0.0%	0.8%	0.5%	2.0%	0.2%	1.5%	0.5%	0.0%
Unknown	7,124	0.0%	0.5%	93.0%	3.2%	0.0%	0.2%	1.9%	1.1%	0.0%	0.0%	0.0%	0.0%
<b>Ontario</b>	<b>3,262,559</b>	0.1%	1.5%	80.9%	8.7%	0.0%	0.2%	5.4%	3.0%	0.0%	0.1%	0.1%	0.0%

**Number of groups and primary care physicians based on LHIN of group, by Family Health Team (FHT) status, 2016/2017 (1 of 2)**

LHIN of provider	Total # Practices	Total # Physicians	PEM type (1 of 2)									
			Blended salary		CCM	FFS	FHG Non-FHT		FHN Non-FHT		FHN FHT	
			# practices	# physicians	# physicians	# physicians	# practices	# physicians	# practices	# physicians	# practices	# physicians
Erie St. Clair	26	419	2	10	19	80	9	105	0	0	1	10
South West	66	771	3	12	19	187	7	87	1	6	5	33
Waterloo Wellington	32	538	1	10	10	117	1	4	0	0	0	0
HNHB	96	1,022	1	7	32	225	29	195	0	0	4	43
Central West	48	594	0	0	24	113	30	300	0	0	0	0
Mississauga Halton	55	919	0	0	41	207	29	332	0	0	0	0
Toronto Central	84	1,392	0	0	36	355	32	305	0	0	0	0
Central	104	1,373	1	7	66	287	39	511	0	0	0	0
Central East	65	1,161	1	3	45	179	18	380	0	0	0	0
South East	34	448	2	9	11	103	5	38	0	0	1	7
Champlain	103	1,271	3	20	36	301	30	258	0	0	0	0
N Simcoe Muskoka	17	338	0	0	2	62	4	13	0	0	2	35
North East	52	480	1	1	4	101	3	25	0	0	4	61
North West	23	216	0	0	5	53	3	32	0	0	1	22
<b>Ontario</b>	<b>805</b>	<b>10,942</b>	<b>15</b>	<b>79</b>	<b>350</b>	<b>2,370</b>	<b>239</b>	<b>2,585</b>	<b>1</b>	<b>6</b>	<b>18</b>	<b>211</b>



**Number of groups and primary care physicians based on LHIN of group, by Family Health Team (FHT) status, 2016/2017 (2 of 2)**

LHIN of provider	Total # Practices	Total # Physicians	PEM type (2 of 2)											
			FHO Non-FHT		FHO FHT		RNPGA Non-FHT		RNPGA FHT		Other Non-FHT		Other FHT	
			# practices	# physicians	# practices	# physicians	# practices	# physicians	# practices	# physicians	# practices	# physicians	# practices	# physicians
Erie St. Clair	26	419	5	84	9	111	0	0	0	0	0	0	0	0
South West	66	771	24	179	26	248	0	0	0	0	0	0	0	0
Waterloo Wellington	32	538	19	197	11	200	0	0	0	0	0	0	0	0
HNHB	96	1,022	41	276	21	244	0	0	0	0	0	0	0	0
Central West	48	594	11	72	7	85	0	0	0	0	0	0	0	0
Mississauga Halton	55	919	19	221	7	118	0	0	0	0	0	0	0	0
Toronto Central	84	1,392	30	395	15	262	0	0	0	0	6	23	1	16
Central	104	1,373	47	311	16	189	0	0	0	0	1	2	0	0
Central East	65	1,161	32	351	14	203	0	0	0	0	0	0	0	0
South East	34	448	11	103	13	162	0	0	0	0	1	1	1	14
Champlain	103	1,271	53	406	17	250	0	0	0	0	0	0	0	0
N Simcoe Muskoka	17	338	4	22	7	204	0	0	0	0	0	0	0	0
North East	52	480	8	103	12	84	12	19	10	37	2	45	0	0
North West	23	216	2	12	4	48	2	5	10	32	1	7	0	0
<b>Ontario</b>	<b>805</b>	<b>10,942</b>	<b>306</b>	<b>2,732</b>	<b>179</b>	<b>2,408</b>	<b>14</b>	<b>24</b>	<b>20</b>	<b>69</b>	<b>11</b>	<b>78</b>	<b>2</b>	<b>30</b>

## Selected Measures from the Health Care Experience Survey

### Access to, and satisfaction with, primary health care

- Timely and appropriate access to primary health care is a key part of the Ministry's Action Plan for Health Care. Specifically, goals include ease of access and faster access to primary care, with more patients receiving same day or next day appointments.
- In 2017, 87% of Ontarians aged 16 and older were satisfied with health care in their community, ranging from 80% in the **North West** LHIN to 90% in **Toronto Central**. This proportion remained consistent between 2013 and 2017.
- The **District of Rainy River** sub-region reported the lowest proportion of residents who were satisfied with health care in their community at 75%, and **Mid-East Toronto** sub-region reported the greatest proportion at 95%.
- 94% of Ontarians aged 16 years and older had a primary care provider (referred to as the attachment rate) in 2017, similar to the proportion in 2013. The attachment rate ranged from 92 % in the **North East** and **North West** LHINs to 97% in the **Erie St. Clair** LHIN.
- Across Ontario sub-regions in 2017, **Oxford** sub-region in the **South West** LHIN reported the highest proportion of attached patients at 98%, and the **District of Rainy River** in the **North West** LHIN report the lowest proportion of attached patients at 80%.
- 40% of Ontarians aged 16 and older were able to see a primary care provider on the same day or next day when they were sick; this ranged from 23% in the **North West** LHIN to 49% in **Central West** LHIN. This proportion decreased annually from 2013, when 45% were able to access same day/next day care with their primary care provider when sick.
- **Bramalea** sub-region indicated the highest percentage of patients who saw their primary care provider the same day or next day when they were sick (60%) and the **District of Kenora** sub-region reported the lowest percentage, respectively (20%).
- Access to after-hours care is another important component of primary care in Ontario. In 2017, 42% of Ontarians aged 16 and older went to the emergency department (ED) for something they felt could have been treated by their primary care provider. These percentages have remained relatively consistent since 2013, when 42% of Ontarians were able to see their primary care provider within the same/day or the next day, when they were sick.
- The **North West** LHIN reported the highest proportion of people visiting the ED for something that could have been treated by their primary care provider (53.1%) and the **Hamilton Niagara Haldimand Brant** LHIN reported the lowest proportion, respectively (29%), in 2017. The **Oakville** sub-region reported the lowest proportion of people who went to the ED for something that could have been treated by a primary care provider (20%) and the **Northern** sub-region reported a proportion almost four times as high (76%).
- Similarly, **Hamilton Niagara Haldimand Brant** LHIN reported the lowest proportion of people who found it difficult to access after-hours care across the province (46%) and the **North West** LHIN reported the highest respectively (72%). Across Ontario, 53% found it challenging to access after-hours care without visiting an ED in 2017, which is marginally lower than the proportion reported in 2013 at 54%. The **Burlington** sub-region in **Hamilton Niagara Haldimand Brant** LHIN reported the lowest proportion of people indicating difficulty accessing after-hours care (30%) and two sub-regions in the **North West** LHIN reported the highest percentages across Ontario, the **District of Kenora** sub-region (85%) and the **District of Rainy River** sub-regions (84%).
- Almost one-third of Ontarians aged 16 years and over (30%) went to a walk-in clinic in 2017, ranging from 13% in the **South East** LHIN to 43% in the **Central West** LHIN. This proportion has slightly decreased since 2013 (31%). The **Windsor** sub-region reported the highest proportion of individuals who visited a walk-in clinic in 2017 at 51% and only 5.1% of residents of the Grey-Bruce sub-region visited a walk-in clinic in 2017.

- 92% of Ontarians aged 16 and older indicated going to a walk in clinic for something that could have been treated by a primary care provider, if they were available. This proportion ranged from 88% in the **Champlain LHIN** to 98% in the **North West LHIN**. In the last 5 years, the provincial proportion increased slightly from 91% in 2013. The **Durham West** sub-region reported the highest proportion of walk-in patients who could have been treated by a primary care provider if they'd been available (97%), whereas Lanark, Leeds, & Grenville in the **South East** LHIN reported the lowest proportion (84%).

**Self-Reported primary care access and satisfaction, adults (aged 16 and older), by LHIN of residence, January 2017-December 2017**

LHIN of residence	Access to, and satisfaction with, primary care						
	% who are satisfied with health care in their community	% patient attachment	% same/next day access when sick	% who went to ED for something that could have been treated by primary care provider	% with difficulty accessing after-hours care without going to ED	% who went to walk-in clinic in past 12 months	% who went to a walk in clinic for something that could have been treated by provider if they were available
<b>Erie St. Clair</b>	82.8%	96.5%	32.4%	46.3%	54.4%	29.1%	94.6%
<b>South West</b>	88.6%	96.1%	44.8%	50.0%	57.4%	16.4%	94.7%
<b>Waterloo Wellington</b>	88.3%	94.6%	40.7%	50.8%	56.3%	20.1%	89.8%
<b>HNHB</b>	83.2%	94.1%	37.8%	29.3%	45.7%	28.5%	90.0%
<b>Central West</b>	86.0%	94.4%	48.9%	42.1%	49.0%	43.0%	95.2%
<b>Mississauga Halton</b>	87.1%	93.2%	43.2%	40.1%	46.2%	40.6%	90.5%
<b>Toronto Central</b>	90.2%	92.6%	43.2%	32.1%	48.4%	32.9%	92.4%
<b>Central</b>	87.9%	94.8%	43.1%	42.3%	51.6%	40.8%	94.1%
<b>Central East</b>	86.2%	93.0%	38.9%	42.5%	52.5%	32.6%	93.9%
<b>South East</b>	84.6%	94.0%	37.3%	52.1%	62.8%	12.7%	89.1%
<b>Champlain</b>	87.1%	94.8%	36.2%	45.0%	54.5%	22.2%	88.2%
<b>North Simcoe Muskoka</b>	86.7%	95.5%	36.8%	43.2%	65.6%	21.6%	94.0%
<b>North East</b>	82.7%	91.5%	29.1%	50.9%	60.9%	21.3%	95.1%
<b>North West</b>	80.4%	91.5%	22.9%	53.1%	71.9%	19.4%	98.0%
<b>Ontario</b>	<b>86.5%</b>	<b>94.1%</b>	<b>39.9%</b>	<b>42.2%</b>	<b>52.9%</b>	<b>29.9%</b>	<b>92.4%</b>

### Sub-region Rankings (by measure), Jan 2014 – Sept 2017

#### Percent who were satisfied with health care in their community

Highest Eight	Lowest Eight
Mid-East Toronto (TC)—95%	Algoma (NE)—80%
Wellington(WW)—94%	Cochrane (NE)—79%
Dufferin (CW)—92%	Nipissing-Temiskaming (NE)—78%
Huron Perth (SW)—92%	Rural Kent (ESC)—78%
Burlington (HNHB)—91%	City of Thunder Bay (NW)—78%
Mid-West Toronto (TC)—91%	District of Kenora (NW)—77%
East Toronto (TC)—91%	Quinte (SE)—76%
Halton Hills (MH)—91%	District of Rainy River (NW)—74%

#### Percent who were attached to a primary care provider

Highest Eight	Lowest Eight
Oxford (SW)—98%	Central Ottawa (Ch)—90%
South Georgian Bay (NSM)—98%	District of Kenora (NW)—90%
Eastern Ottawa (Ch)—98%	Mid-West Toronto (TC)—89%
Lanark, Leeds and Grenville (SE)—98%	City of Thunder Bay (NW)—89%
Couchiching (NSM)—98%	Northern (NW)—85%
Halton Hills (MH)—98%	District of Thunder Bay (NW)—83%
Lambton (ESC)—98%	West Toronto (TC)—82%
Huron Perth (SW)—97%	District of Rainy River (NW)—80%

#### Percent who were able to see their provider the same day or next day when they were sick

Highest Eight	Lowest Eight
Bramalea (CW)—60%	Algoma (NE)—30%
North Etobicoke Malton West Woodbridge (CW)—57%	Barrie and Area (NSM)—30%
North York West (C)—57%	Grey Bruce (SW)—29%
Northern York Region (C)—52%	Cochrane (NE)—24%
East Toronto (TC)—52%	City of Thunder Bay (NW)—22%
East Mississauga (MH)—52%	Sudbury-Manitoulin-Parry Sound (NE)—21%
North Toronto (TC)—51%	North Simcoe (NSM)—21%
Eastern York Region (C)—51%	District of Kenora (NW)—20%

### Percent who went to an ED for something that could have been treated by primary care provider

Highest Eight	Lowest Eight
Northern (NW)—76%	South Georgian Bay (NSM)—29%
District of Rainy River (NW)—72%	Tecumseh Lakeshore Amherstburg LaSalle (ESC)—28%
District of Kenora (NW)—72%	Northern York Region (C)—28%
Grey Bruce (SW)—66%	East Toronto (TC)—28%
Cochrane (NE)—64%	North Toronto (TC)—27%
North Simcoe (NSM)—64%	Windsor (ESC)—24%
Western Champlain (Ch)—64%	Halton Hills (MH)—24%
Lanark, Leeds & Grenville (SE)—62%	Oakville (MH)—20%

### Percent who found it difficult to access care after-hours without going to an emergency department

Highest Eight	Lowest Eight
District of Kenora (NW)—85%	Hamilton (HNHB)—41%
District of Rainy River (NW)—84%	Mid-East Toronto (TC)—41%
Oxford (SW)—79%	East Mississauga (MH)—39%
Algoma (NE)—78%	Kingston (SE)—38%
Grey Bruce (SW)—78%	Bolton-Caledon (CW)—37%
Muskoka (NSM)—77%	Northern York Region (C)—37%
District of Thunder Bay (NW)—77%	Halton Hills (MH)—36%
Lambton (ESC)—76%	Burlington (HNHB)—30%

### Percent who went to walk-in clinic in previous 12 months

Highest Eight	Lowest Eight
Chatham City Centre (ESC)—9.8%	North Etobicoke Malton West Woodbridge (CW)—45%
District of Kenora (NW)—9.6%	Brampton (CW)—46%
Huron Perth (SW)—9.5%	North West Mississauga (MH)—47%
Quinte (SE)—8.9%	Burlington (HNHB)—47%
Lanark, Leeds & Grenville (SE)—7.6%	Northern York Region (C)—48%
Lambton (ESC)—7.6%	Tecumseh Lakeshore Amherstburg LaSalle (ESC)—49%
Western Champlain (Ch)—7.0%	Western York Region (C)—49%
Grey Bruce (SW)—5.1%	Windsor (ESC)—51%

**Percent who went to a walk in clinic for something that could have been treated by a provider if they were available**

Highest Eight	Lowest Eight
<p>City of Thunder Bay (NW)—94%</p> <p>Tecumseh Lakeshore Amherstburg LaSalle (ESC)—95%</p> <p>Northern York Region (C)—95%</p> <p>Brampton (CW)—95%</p> <p>Barrie and Area (NSM)—95%</p> <p>North Toronto (TC)—95%</p> <p>South West Mississauga (MH)—96%</p> <p>Durham West (CE)—97%</p>	<p>Central Ottawa (Ch)—88%</p> <p>Haliburton County and City Of Kawartha Lakes (CW)—88%</p> <p>Wellington (WW)—87%</p> <p>Algoma (NE)—87%</p> <p>Eastern Ottawa (Ch)—86%</p> <p>Huron Perth (SW)—85%</p> <p>Rural Kent (ESC)—84%</p> <p>Lanark, Leeds &amp; Grenville (SE)—84%</p>

## Community Care

**Notes:**

This chapter and the accompanying workbook contain LHIN-level analysis of community services reported in accordance with the Ontario Healthcare Reporting Standards via the Trial Balance submission process. Results shown are for 2016/17 Year End.

Detailed analysis is provided in the accompanying Excel workbook:

***Community Services (2018)***

The excel workbook contains volumes of services provided and calculation of the population served by:

1. *Children's Treatment Centres (CTC)*
2. *Community Mental Health and Addictions (CMH&A)*
3. *Community Support Services (CSS)*
4. *Community Health Centres (CHC)*

**Prepared July 2018**

**Excel workbooks provided by:** *Health Analytics Branch, Ministry of Health and Long Term Care*

**Analysis & interpretation prepared by:** *Alex Vucenovic, Erie St. Clair LHIN*



## Definitions

Measure	Description
Community Visits-Face to Face	The total number of face to face visits (including those occurring by videoconference) with registered patients and/or their significant others (who seek service on behalf of the registered patient). Service is provided on an individual basis (i.e. not in a group setting) and the interaction with the service provider is typically longer than five minutes.
Community Visits-Non Face to Face visits	The total number of non-face to face visits (e.g. via telephone, email, text or chat) with registered patients and/or their significant others (who seek service on behalf of the registered patient). Service is provided on an individual basis (i.e. not in a group setting) and the interaction with the service provider is typically longer than five minutes.
Community Service - Not Uniquely Identified Service Recipient Interaction	The total number of face to face or non-face to face visits or service interactions with non-registered patients and/or where health records for the interaction are not generated. This category includes situations where agency staff provide education or information and referral.
Community Group Participants Patient Attendances	The total number of registered patients who participate and receive service in group sessions. Values include participants in adult day programs, social and congregate dining etc. Individuals will be counted once per session that they attend.
Resident Days	The number of calendar days during which services are provided to an inpatient/resident during the reporting period. The day of admission is counted as an inpatient/resident day but the day of discharge is not. When the service recipient is admitted and separated (discharged or died) on the same day, one inpatient/resident day is counted.

- For the measure CSS\_Community Visits-Face to Face Visits per 1,000 population 75+, **Central West** LHIN ranked lowest at 2,110 and **Toronto Central** ranked highest at 9,862 (province was 5,365).
- For the measure CSS\_Community Visits- Non Face to Face Visits per 1,000 population 75+, **Hamilton Niagara Haldimand Brant** LHIN ranked lowest at 677 and **Central West** ranked highest at 3,055. (province was 1,556).
- For the measure CSS\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population 75+, **Central West** LHIN ranked lowest at 52 and **North West** ranked highest at 1,820 (province was 397).
- For the measure CSS\_Community Group Participants Patient Attendances per 1,000 population 75+, **Central West** LHIN ranked lowest at 131 and **North West** ranked highest at 1,007 (province was 465).
- For the measure CSS\_Resident Days (Assisted Living, Overnight stay care) Resident Days per 1,000 population 75+, **Waterloo Wellington** LHIN ranked lowest at 1,307 and **North West** ranked highest at 13,914 (province was 5,110).

## Community Care FY 2016/2017

Children's Treatment Centres (per 1,000 population 0-18)	Ontario	Range Across LHINs
Community Visits-Face to Face Visits	173	0 - 551
Community Visits- Non Face to Face Visits	31	0 - 119
Community Service - Not Uniquely Identified Service Recipient Interaction Visits	2.7	0 - 55.1
Community Group Participants Patient Attendances Visits	54	0 - 261

Community Mental Health and Addictions (per 1,000 population)	Ontario	Range Across LHINs
Community Visits-Face to Face Visits	232	96 - 853
Community Visits- Non Face to Face Visits	126	80 - 303
Community Service - Not Uniquely Identified Service Recipient Interaction Visits	55	5 - 217
Community Group Participants Patient Attendances	65	30 - 153
Resident Days	271	29 - 1,215

Community Support Services (per 1,000 population)	Ontario	Range Across LHINs
Community Visits-Face to Face Visits	385	102 - 722
Community Visits- Non Face to Face Visits	112	49 - 207
Community Service - Not Uniquely Identified Service Recipient Interaction Visits	28	3 - 136
Community Group Participants Patient Attendances	33	6 - 75
Resident Days (Assisted Living, Overnight stay care)Resident Days	366	82 - 1,038

Community Support Services (CSS) (per 1,000 population 75+)	Ontario	Range Across LHINs
Community Visits-Face to Face Visits	5,365	2,110 - 9,862
Community Visits- Non Face to Face Visits	1,556	677 - 3,055
Community Service - Not Uniquely Identified Service Recipient Interaction Visits	397	52 - 1,820
Community Group Participants Patient Attendances	465	131 - 1,007
Resident Days (Assisted Living, Overnight stay care)Resident Days	5,110	1,307 - 13,914

## Mental Health Services

### Notes:

This chapter and the accompanying workbook contain LHIN- and sub-region level analysis of analysis of unscheduled emergency visits for mental health and substance abuse disorders. LHIN-level analysis of opioid overdose, inpatient utilization of adult designated mental health units and wait time for community mental health, substance abuse, and problem gambling services is also included. The analysis is based on data from the National Ambulatory Care Reporting System, the Ontario Mental Health Reporting System (which includes activity in designated adult mental health units), and **ConnexOntario** Health Services Information.

Detailed analysis is provided in the accompanying Excel workbook:

### **5.5 Mental Health (2018).xlsx**

The excel workbook contains:

1. *LHIN of hospital summary:*
  - *Unscheduled ED visits for mental health and substance abuse conditions (main problem/any problem), 2014/15-2016/17;*
  - *Unscheduled ED visits for opioid overdose, 2013/14-2016/17;*
  - *Inpatient active cases, admissions, discharges, days, and mean length of stay, 2006/07-2016/17;*
  - *SCIPP categories, 2016/17, for adult designated mental health units, and rankings, by LHIN of hospital;*
  - *Median wait times for community mental health substance abuse and problem gambling services, 2017/18, and rankings, by LHIN of provider*
2. *LHIN of Patient Summary:*
  - *Unscheduled ED visits for mental health and substance abuse conditions (main problem/any problem) and crude visit rates, 2003/04-2016/17, and age-specific number and visit rates, 2016/17;*
  - *Unscheduled ED visits for opioid overdose and crude visit rates, 2013/14-2016/17;*
  - *Inpatient active cases, admissions, discharges, days, mean length of stay, and crude active case, admission, discharge, and day rates, for adult designated mental health units, 2006/07-2016/17, age-specific number of active cases and rates, 2016/17, and # and % of active cases by SCIPP category, 2016/17, and rankings, by LHIN of patient residence.*
3. *Sub-region of Patient:*
  - *Unscheduled ED visits for mental health and substance abuse conditions (main problem/any problem), crude visit rates, and age-specific number and visit rates;*
  - *Inpatient active cases, admissions, discharges, mean length of stay, and crude active case, admission, and discharge rates, age-specific number of active cases and rates, and # and % of active cases by SCIPP category for adult designated **Mental health units**, 2016/17, and rankings, by sub-region area of residence.*
4. *Inflow Outflow:*
  - *Adult inpatient designated mental health active cases for LHIN and sub-region residents by LHIN of hospital, 2016/17*

*Wait Time (in days) for Community Mental Health, Substance Abuse and Problem Gambling Services*

*Availability or "wait time", as reported to ConnexOntario, refers to an estimated date of the next available treatment slot, where treatment slot refers to the next available bed, appointment date, and/or caseload opening, depending on the type of service. Note that the wait time information includes programs where there was no wait for service (0 days).*

*There are some ED visit records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables with the LHIN name but as SR unassigned (e.g. **Erie St. Clair** LHIN, SR unassigned (# 199)). These unassigned sub-regions are included in the min/max values and are also shown in the sub-region rankings and as a result, SR rankings may be higher than 76.*

*Sub-region 406 (**Haldimand Norfolk**) includes all of Norfolk County CSD which is shared between the **HNHB** and South West LHINs; therefore, sums for **HNHB** sub-regions will be greater than the **HNHB** LHIN total. In addition, there may be other cases where sub-regions do not sum to LHIN totals, due to how sub-regions and LHINs are assigned in the crosswalks.*

*Unless otherwise specified, measures are reported by LHIN of Patient.*

**Prepared June 2018**

**Excel workbooks provided by:** Health Analytics Branch, Ministry of Health and Long Term Care  
**Analysis & interpretation prepared by:** Maria Sanchez, Central West LHIN

### Wait Time for Community Services

Organizations that receive Ontario MOHLTC/LHIN funding to provide mental health and substance abuse services must provide information to **ConnexOntario** Health Service Information for the Drug & Alcohol Helpline (DAH), Ontario Problem Gambling Helpline (OPGH) and Mental Health Helpline (MHH) registries, including regular reporting of the availability of service. Availability or "wait time" refers to the estimated date of the next available treatment slot, where treatment slot refers to a bed, appointment date, and/or caseload opening. Values shown are the median wait time (in days) for all organizations providing the service, across all reporting periods during the fiscal year. Blank values indicate that the service type was not provided within the LHIN, while those with a wait time of zero had no wait for service.

- Support within housing and assertive community treatment (ACT) teams had the longest median wait times among the community MH services, while diversion and court support, early psychosis intervention, and Centralized/Coordination Access had the shortest wait times for Ontario (only 6 of 14 LHINs provide this service). There was a substantial variation in wait time by LHIN and by service type.
- The provision of SA treatment services varies by LHIN area, with more specialized services such as Centralized/Coordination Access and residential supportive treatment services being provided in half (or less than half) of all LHINs. Residential treatment and case management/supportive counselling and services had the longest median wait times among all the SA treatment services.
- Community treatment was the only problem gambling service that was provided in all LHINs. The median wait time for Ontario was 10 days, with a range of 3 (**Central** LHIN) to 21 days (**Central West** LHIN).

**Median wait time (in days) to next available treatment slot for community mental health services by LHIN of service and service type, 2017/18**

LHIN of Service	Abuse Service	Assertive Community Treatment Team	Case Management/ Supportive Counselling and Services	Centralized/ Coordination Access	Counselling and Treatment
Erie St. Clair	0	2,191	0	-	2
South West	0	183	15	-	25
Waterloo Wellington	0	0	455	-	30
Hamilton Niagara Haldimand Brant	60	0	5	-	30
Central West	0	0	30	150	13
Mississauga Halton	-	122	22	-	16
Toronto Central	0	90	0	0	42
Central	60	125	15	0	30
Central East	14	30	15	-	20
South East	22	0	30	4	30
Champlain	20	90	4	0	33
North Simcoe Muskoka	60	30	7	-	28
North East	5	7	0	0	14
North West	0	0	5	-	10
Ontario	5	30	7	0	21

**Median wait time (in days) to next available treatment slot for community mental health services by LHIN of service and service type, 2017/18 (continued)**

LHIN of Service	Day / Night Care Mental Health	Diversion & Court Support	Early Intervention	Support Within Housing	Vocational / Employment
Erie St. Clair	0	0	0	0	30
South West	-	0	0	61	33
Waterloo Wellington	35	0	3	640	-
Hamilton Niagara Haldimand Brant	0	0	0	31	0
Central West	-	0	0	458	0
Mississauga Halton	28	0	0	86	9
Toronto Central	35	0	0	0	8
Central	60	0	15	87	0
Central East	7	0	0	365	-
South East	-	0	3	92	28
Champlain	120	0	30	74	0
North Simcoe Muskoka	-	0	0	0	
North East	-	0	0	0	1
North West	-	0	0	92	60
Ontario	28	0	0	75	9

**Median wait time (in days) to next available treatment slot for substance abuse treatment services by LHIN of service and service type, 2017/18**

LHIN of Service	Addictions Treatment	Withdrawal Management	Case Management	Addictions Supportive Housing	Centralized / Coordination Access
Erie St. Clair	0	0	-	-	-
South West	8	0	4	15	-
Waterloo Wellington	9	0	0	120	-
Hamilton Niagara Haldimand Brant	3	3	46	21	-
Central West	0	-	73	-	-
Mississauga Halton	11	3	7	-	-
Toronto Central	0	1	0	34	1
Central	5	4	0	362	-
Central East	8	1	6	278	-
South East	27	-	0	-	8
Champlain	15	0	14	47	16
North Simcoe Muskoka	7	7	14	5	-
North East	15	0	9	21	-
North West	14	0	0	90	-
Ontario	8	1	10	34	10

**Median wait time (in days) to next available treatment slot for substance abuse treatment services by LHIN of service and service type, 2017/18 (continued)**

LHIN of Service	Day/Evening Care	Residential Supportive Treatment	Residential Treatment
Erie St. Clair	1	-	63
South West	6	36	61
Waterloo Wellington	11	-	77
Hamilton Niagara Haldimand Brant	5	42	32
Central West	0	-	243
Mississauga Halton	-	-	90
Toronto Central	1	15	68
Central	0	-	-
Central East	28	-	62
South East	-	48	42
Champlain	0	0	7
North Simcoe Muskoka	-	-	36
North East	8	2	21
North West	0	0	47
Ontario	2	10	42

**Median wait time (in days) to next available treatment slot for problem gambling treatment services by LHIN of service and service type, 2017/18**

LHIN of Service	Addictions Treatment	Day/Evening Care	Residential Treatment
Erie St. Clair	5	14	49
South West	12	-	-
Waterloo Wellington	10	-	-
Hamilton Niagara Haldimand Brant	10	-	-
Central West	21	-	-
Mississauga Halton	5	-	-
Toronto Central	4	0	0
Central	3	-	-
Central East	7	-	-
South East	17	-	-
Champlain	14	-	-
North Simcoe Muskoka	9	-	-
North East	8	-	-
North West	8	49	50
Ontario	10	13	30

**Mental Health and Substance Abuse Emergency Department Visits**

- In 2016/17, there were 271,895 unscheduled ED visits in Ontario hospitals, where the main problem was a MH/SA condition. 4.5% of these visits were made by homeless individuals, ranging from 0.7% in **North West** LHIN hospitals to 16.2% in **Toronto Central** LHIN hospitals.
- In 2016/17, there were 268,514 emergency department (ED) visits for Ontario residents where the main problem or reason for the visit was a mental health (MH) or substance abuse (SA) condition. In total, there were 338,260 visits with a MH/SA condition in any of the diagnostic fields.
- Between 2013/14 and 2016/17, there was 20.9% growth in visits with a MH/SA main problem diagnosis and 21.1% growth in visits with a MH/SA condition in any diagnostic field.
  - Growth in visits with a MH/SA main problem diagnosis ranged from 10.7% in **North Simcoe Muskoka** LHIN (**lowest**), followed by **Champlain** (15.1%) and **North East** (17.2%) to 34.1% in **Waterloo Wellington** (**highest**), followed by **North West** (27.6%) and **Central West** (25.1%).
- In 2016/17, visits with a MH/SA main problem diagnosis accounted for 4.3% of all unscheduled ED visits for Ontario residents. MH/SA visits accounted for 21.3% of all visits for those with an unknown LHIN of residence. This group includes individuals who could not be assigned to a LHIN based on the recorded postal code for the visit and will also include patients who are homeless.

- **North West** LHIN residents had the **highest** ED visit rates per 1,000 population (48.1) for **MH/SA** conditions (main problem diagnosis), followed by **North East** (31.0) and **South East** (22.8). **Central** LHIN residents had the **lowest** ED visit rates (11.7), followed by **Mississauga Halton** (12.0) and **Central West** (15.1).
  - Residents of the following sub-regions had the lowest and highest ED visit rates (per 1,000 population) for MH/SA conditions (main problem diagnosis):

Lowest ED Visits for MH/SA	Highest ED Visits for MH/SA
<ul style="list-style-type: none"> <li>- Eastern York Region (C)—7.4</li> <li>- Scarborough North (CE)—8.7</li> <li>- North West Mississauga (MH)—8.7</li> <li>- Western York Region (C)—8.8</li> <li>- Bolton-Caledon (CW)—10.5</li> <li>- Niagara North West (HNHB)—11.1</li> <li>- Tecumseh Lakeshore Amherstburg LaSalle (ESC)—11.1</li> <li>- South West Mississauga (MH)—11.6</li> </ul>	<ul style="list-style-type: none"> <li>- Mid-East Toronto (TC)—32.3</li> <li>- City of Thunder Bay (NW)—40.5</li> <li>- Cochrane (NE)—44.6</li> <li>- District of Rainy River (NW)—47.0</li> <li>- District of Kenora (NW)—48.5</li> <li>- District of Thunder Bay (NW)—51.1</li> <li>- James and Hudson Bay Coasts (NE)—88.1</li> <li>- Northern (NW)—91.7</li> </ul>

- In 2016/17, ED visit rates with a MH/SA main problem diagnosis per 1,000 population varied by age group. Residents aged 18-44 had the highest age-specific ED visit rate at 29.5 per 1,000 population, ranging from 17.0 for **Central** LHIN residents (**lowest**) to 87.5 for **North West** LHIN residents (**highest**). Those aged 80+ had the second highest age-specific ED visit rate for MH/SA conditions, ranging from 14.7 for **Hamilton Niagara Haldimand Brant** LHIN residents (**lowest**) to 24.9 for **North East** LHIN residents (**highest**).
  - Residents aged 18-44 of the following sub-regions had the lowest and highest ED visit rates with a MH/SA main problem diagnosis per 1,000 aged 18-44:

Lowest ED Visits for MH/SA (18-44)	Highest ED Visits for MH/SA (18-44)
<ul style="list-style-type: none"> <li>- Scarborough North (CE)—11.1</li> <li>- Eastern York Region (C)—11.7</li> <li>- Western York Region (C)—13.1</li> <li>- North West Mississauga (MH)—13.3</li> <li>- Niagara North West (HNHB)—14.8</li> <li>- North York Central (C)—15.5</li> <li>- Western Ottawa (Ch)—16.7</li> <li>- Bolton-Caledon (CW)—17.2</li> </ul>	<ul style="list-style-type: none"> <li>- Nipissing-Temiskaming (NE)—51.2</li> <li>- City of Thunder Bay (NW)—74.7</li> <li>- District of Kenora (NW)—80.7</li> <li>- Cochrane (NE)—82.0</li> <li>- District of Rainy River (NW)—86.8</li> <li>- District of Thunder Bay (NW)—98.5</li> <li>- James and Hudson Bay Coasts (NE)—147.1</li> <li>- Northern (NW)—157.6</li> </ul>

- In 2016/17, there were 4,831 ED visits for opioid overdose. Of those, 50.1% were accidental.
  - ED visits for accidental overdoses ranged from 36.8% for **Mississauga Halton** LHIN residents (**lowest**) to 65.8% for **Hamilton Niagara Haldimand Brant** LHIN residents (**highest**).
- The crude rate of ED visits for opioid overdose in FY2016 for Ontario residents was 3.5, ranging from 1.6 for **Central** LHIN residents (**lowest**) to 5.6 for **Hamilton Niagara Haldimand Brant** LHIN residents (**highest**). 50.1% of ED visits for opioid overdose were accidental, ranging from 36.8% for **Mississauga Halton** LHIN residents (**lowest**) to 65.8% for **Hamilton Niagara Haldimand Brant** LHIN residents (**highest**).
- Between 2013/14 and 2016/17, there was a 53.0% growth in total visits and a 48.4% growth in the visit rate for opioid overdose for all Ontario residents.



- Growth in the number of visits ranged from 1.7% for **North East** LHIN residents (**lowest**), to 97.0% for **Waterloo Wellington** LHIN residents (**highest**).
- Growth in the visit rate ranged from 2.3% for **South East** LHIN residents (**lowest**) to 91.4% for **Waterloo Wellington** residents (**highest**).

**Unscheduled emergency department utilization for mental health and substance abuse conditions by LHIN of patient residence, 2016/17**

LHIN of patient	Mental Health/Substance Abuse Visits (main diagnosis)			Mental Health/Substance Abuse Visits (any diagnosis)		
	# of ED Visits	% of Total Visits	Range across sub-regions (% of total visits)	# of ED Visits	% of Total Visits	Range across sub-regions (% of total visits)
Erie St. Clair <sup>†</sup>	13,548	4.5%	2.9% – 7.4%	16,569	5.5%	3.6% - 8.9%
South West	19,331	3.3%	2.6% – 4.2%	25,773	4.4%	3.5% - 5.6%
Waterloo Wellington	14,300	4.7%	2.8% - 5.3%	18,223	6.0%	3.6% - 6.7%
Hamilton Niagara Haldimand Brant	28,416	4.1%	2.4% - 4.4%	34,691	5.0%	3.0% - 5.5%
Central West <sup>†</sup>	14,081	4.4%	3.1% - 11.1%	16,443	5.2%	3.7% - 12.3%
Mississauga Halton	15,110	4.0%	3.4% - 4.4%	18,622	4.9%	4.0% - 5.5%
Toronto Central	28,500	6.6%	5.1% - 8.9%	34,097	7.9%	6.5% - 10.3%
Central	22,134	3.6%	2.9% - 4.7%	28,350	4.6%	3.9% - 5.7%
Central East	28,257	4.3%	2.8% - 5.5%	35,100	5.3%	3.6% - 6.5%
South East	11,370	3.6%	2.6% - 4.9%	15,441	4.9%	3.7% - 6.3%
Champlain <sup>†</sup>	24,957	4.2%	2.9% - 12.5%	33,484	5.6%	3.9% - 14.4%
North Simcoe Muskoka	9,180	3.6%	2.6% - 4.4%	12,064	4.7%	3.4% - 5.8%
North East <sup>†</sup>	17,430	3.8%	3.5% - 4.5%	22,664	5.0%	4.4% - 5.5%
North West	11,315	5.3%	3.7% - 8.9%	15,053	7.1%	4.5% - 12.1%
Unknown LHIN	10,585	21.3%	-	11,686	23.5%	-
Out-of province	3,381	2.6%	-	4,216	3.3%	-
Ontario	268,514	4.3%	2.4% - 12.5%	338,260	5.5%	3.0% - 14.4%

<sup>†</sup> There are some ED visit records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables in the excel files with the LHIN name but as SR unassigned (e.g. **Erie St. Clair** LHIN, SR unassigned (# 199)). These unassigned sub-regions are included in the min/max values of the range across sub-regions.

Unscheduled emergency department visit rate per 1,000 population for mental health and substance abuse conditions  
by LHIN of patient residence, 2016/17

LHIN of patient	Visit Rate/1,000 (main diagnosis)			Visit Rate/1,000 (any diagnosis)		
	Rate	% Change in Rate (2013/14 – 2016/17)	Range across sub- regions	Rate	% Change in Rate (2013/14 – 2016/17)	Range across sub-regions
Erie St. Clair <sup>†</sup>	21.1	20.1%	11.1 - 28.2	25.8	15.5%	13.6 – 34.1
South West	19.7	16.9%	18.5 – 25.7	26.3	21.6%	24.3 – 34.1
Waterloo Wellington	18.3	<u>30.5%</u>	15.3 -21.5	23.3	<u>23.5%</u>	20.1 – 28.1
Hamilton Niagara Haldimand Brant	19.5	18.3%	11.1 – 23.0	23.7	14.8%	14.3 – 28.9
Central West <sup>†</sup>	<b>15.1</b>	19.1%	10.5 – 15.0	<b>17.6</b>	19.3%	12.1 – 18.4
Mississauga Halton	<b>12.0</b>	15.2%	8.7 – 15.5	<b>14.7</b>	<b>13.4%</b>	11.0 – 19.2
Toronto Central	22.2	<b>13.2%</b>	13.0 – 32.3	26.5	14.6%	16.6 – 37.3
Central	<b>11.7</b>	14.7%	7.4 - 18.1	<b>15.0</b>	16.9%	10.1 – 22.1
Central East	17.4	17.0%	8.7 – 27.9	21.6	16.6%	11.9 – 34.9
South East	<u>22.8</u>	<u>21.0%</u>	16.1 – 28.8	<u>31.0</u>	<u>22.7%</u>	23.0 – 37.2
Champlain <sup>†</sup>	18.7	<b>11.5%</b>	12.2 -25.3	25.1	17.4%	16.8 – 34.2
North Simcoe Muskoka	18.9	<b>6.2%</b>	14.8 – 24.3	24.8	<b>7.5%</b>	19.6 – 33.0
North East <sup>†</sup>	<u>31.0</u>	18.1%	25.2 – 88.1	<u>40.3</u>	<b>14.4%</b>	30.5 – 99.6
North West	<u>48.1</u>	<u>28.2%</u>	40.5 -91.7	<u>64.0</u>	<u>32.5%</u>	50.5 – 124.0
Unknown LHIN	21.1	-	-	-	-	-
Out-of province	19.7	-	-	-	-	-
Ontario	19.2	17.1%	7.4 – 91.7	24.2	17.3%	10.1 – 124.0

Highest 3 LHINs are in *italics*. Lowest 3 LHINs are in **bold**.

<sup>†</sup> There are some ED visit records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables in the excel files with the LHIN name but as SR unassigned (e.g. *Erie St. Clair* LHIN, SR unassigned (# 199)). These unassigned sub-regions are included in the min/max values of the range across sub-regions.

### Unscheduled emergency department utilization for opioid overdose by LHIN of patient residence, 2016/17

	# of ED Visits	Crude Rate per 10,000 population	% change in rate of ED visits for opioid overdose, 2013/14-2016/17	Proportion that were accidental
<b>LHIN of patient</b>				
Erie St. Clair	202	3.1	5.6%	39.1%
South West	348	3.5	51.0%	41.1%
Waterloo Wellington	323	4.1	<u>91.4%</u>	40.2%
Hamilton Niagara	819	<u>5.6</u>	<u>71.8%</u>	<u>65.8%</u>
Central West	166	1.8	56.9%	41.6%
Mississauga Halton	266	2.1	63.3%	36.8%
Toronto Central	368	2.9	<u>78.1%</u>	49.7%
Central	308	1.6	41.4%	<u>53.9%</u>
Central East	506	3.1	39.8%	46.2%
South East	190	3.8	2.3%	46.8%
Champlain	351	2.6	26.6%	41.9%
North Simcoe Muskoka	239	<u>4.9</u>	41.7%	<u>60.7%</u>
North East	239	4.3	2.9%	45.6%
North West	111	<u>4.7</u>	9.6%	48.6%
<b>Ontario</b>	<b>4,831</b>	<b>3.5</b>	<b>48.4%</b>	<b>50.1%</b>

Highest 3 LHINs are in *italics*. Lowest 3 LHINs are in **bold**.

### Utilization of Adult Designated Mental Health Beds (by LHIN of hospital)

- There were 60,383 admissions and 64,738 active cases who received treatment in Ontario adult designated mental health units. There were 60,795 discharges from these units with a mean length of stay of 24.9 days.
  - Toronto Central** LHIN hospitals had the **highest** number of active cases, admissions, discharges and total days (26,069). **North Simcoe Muskoka** LHIN hospitals had the **highest** mean length of stay for discharges (35.8). **North West** LHIN hospitals had the **lowest** number of active cases, admissions and discharges (4,076). **Central West** LHIN hospitals had the **lowest** number of total and **lowest** mean length of stay for discharges (11.4).
- Between 2013/14 and 2016/17, the number of active cases, admissions, and discharges increased by approximately 5.5%, 6.6% and 7.4%, respectively. However, there was a 4.5% reduction in the total days for discharged patients. The mean length of stay in Ontario decreased over the last four years from 28.0 days in 2013/14 to 24.9 days in 2016/17.
  - South East** LHIN hospitals had the **highest** reduction in active cases at 13.3% and total days at 45.3% from 2013/14 to 2016/17. **North East** LHIN hospitals had the **highest** increase at 14.4%. **Champlain** LHIN hospitals had the **highest** increase in total days at 18.0%.
- The case mix grouping method for Ontario Mental Health Reporting System (OMHRS) is the System for the Classification of Inpatient Psychiatry (SCIPP), which aggregates cases into broad diagnostic categories based on assessment information. The SCIPP group identifies the most resource intensive diagnosis among all the patient's conditions. Bipolar and depressive disorders (29.6%), short stay (27.4%) and schizophrenia and psychotic disorders (27.0%) accounted for the largest proportions of active cases in Ontario adult designated mental health units in 2016/17.

- The proportion of active cases by SCIPP group varied by LHIN. For example, **Waterloo Wellington** LHIN hospitals had the **highest** proportion of active cases with substance related disorders (18.9% compared to 5.5% for Ontario). **Mississauga Halton** had the **highest** proportion of active cases for schizophrenia and psychotic disorders (32.1% compared to 27.0% for Ontario). **Erie St. Clair** had the **highest** proportion of active cases for bipolar and depressive disorders (38.1% compared to 29.6% for Ontario).

### Adult designated mental health unit utilization by LHIN of hospital, 2016/17

	Active cases	Admissions	Discharges	Total Days†	Mean LOS	% Inflow
<b>LHIN of hospital</b>						
Erie St. Clair	3,138	2,972	2,982	53,858	18.1	<b>6.6%</b>
South West	5,907	5,491	5,497	144,048	26.2	<b>11.6%</b>
Waterloo Wellington	4,878	4,437	4,495	146,778	32.7	<b>40.6%</b>
Hamilton Niagara Haldimand Brant	6,472	6,055	6,064	147,045	24.2	<b>9.7%</b>
Central West	2,517	2,449	2,466	28,116	<b>11.4</b>	<b>21.3%</b>
Mississauga Halton	3,170	3,025	3,045	45,385	<b>14.9</b>	<b>17.4%</b>
Toronto Central	9,116	8,431	8,522	224,944	26.4	<b>44.0%</b>
Central	5,198	5,019	5,061	63,034	<b>12.5</b>	<b>24.1%</b>
Central East	6,494	5,991	6,019	177,364	29.5	<b>17.4%</b>
South East	2,200	2,021	2,026	69,377	<i>34.2</i>	<b>9.3%</b>
Champlain	6,569	6,104	6,145	157,996	25.7	<b>10.1%</b>
North Simcoe Muskoka	3,278	2,950	2,973	106,464	<i>35.8</i>	<b>25.1%</b>
North East	4,379	4,118	4,166	103,331	24.8	<b>4.8%</b>
North West	1,422	1,320	1,334	45,014	<i>33.7</i>	<b>4.1%</b>
Ontario Hospitals	64,738	60,383	60,795	1,512,754	24.9	
†Discharged cases only						

Highest 3 LHINs are in *italics*. Lowest 3 LHINs are in **bold**.

Proportion of active cases in adult designated mental health units by LHIN of hospital and SCIPP group, 2016/17

	SCIPP Group							
	Short Stay <sup>‡</sup>	Schizophrenia & other psychotic disorders	Neuro-cognitive disorders	Bipolar & depressive disorders	Personality disorders	Feeding and eating disorders	Substance Use disorders	Other <sup>†</sup> disorders
<b>LHIN of hospital</b>								
Erie St. Clair	18.8%	31.7%	1.7%	38.1%	1.9%	-	3.5%	4.1%
South West	30.5%	21.0%	4.9%	30.4%	4.3%	0.1%	4.6%	4.2%
Waterloo	20.2%	12.5%	3.0%	30.8%	4.0%	1.6%	18.9%	8.9%
Hamilton Niagara	26.3%	26.6%	3.6%	31.6%	5.0%	-	3.4%	3.3%
Central West	31.8%	31.1%	0.4%	30.2%	1.0%	0.0%	3.0%	2.4%
Mississauga	29.3%	32.1%	3.4%	30.7%	1.1%	-	1.1%	2.2%
Toronto Central	23.3%	31.5%	2.0%	30.2%	2.5%	0.5%	7.6%	2.3%
Central	30.3%	30.4%	2.9%	28.2%	2.4%	-	3.2%	2.3%
Central East	28.8%	30.8%	2.9%	28.8%	1.8%	0.4%	2.6%	3.7%
South East	32.3%	27.3%	5.4%	23.3%	3.8%	-	3.7%	3.8%
Champlain	25.8%	29.9%	5.1%	25.7%	4.0%	0.7%	4.8%	3.9%
North Simcoe	30.3%	24.2%	2.5%	29.4%	2.7%	0.2%	4.7%	5.9%
North East	33.3%	22.1%	2.1%	30.7%	3.0%	-	4.2%	4.4%
North West	34.4%	23.2%	2.3%	20.5%	3.0%	-	8.8%	7.5%
<b>Ontario Hospitals</b>	<b>27.4%</b>	<b>27.0%</b>	<b>3.1%</b>	<b>29.6%</b>	<b>3.0%</b>	<b>0.4%</b>	<b>5.5%</b>	<b>4.0%</b>

‡Includes inpatient stays (for any condition) of less than 72 hours.

†Includes other disorders, ungroupable and non-mental health SCIPP groups.

- In 2016/17, there were 548.5 active cases in adult designated mental health units per 100,000 Ontario residents aged 15 and older. The admission and discharge rates were comparable at 511.7 and 515.2, respectively. Residents of **North East**, **North West** and **South West** LHINs had the **highest** active case, admission and discharge rates. Residents of **Mississauga Halton**, **Central West** and **Central** had the **lowest** rates.

- Residents of the following sub-regions had the lowest and highest active case rate per 100,000 population age 15+:

Lowest Active Case Rate	Highest Active Case Rate
<ul style="list-style-type: none"> <li>- Niagara North West (HNHB)—239.9</li> <li>- Bolton-Caledon (CW)—251.0</li> <li>- Western York Region (C)—252.7</li> <li>- North West Mississauga (MH)—255.0</li> <li>- Scarborough North (CE)—270.2</li> <li>- Eastern York Region (C)—297.8</li> <li>- Halton Hills (MH)—303.3</li> <li>- Northumberland County (CE)—306.0</li> </ul>	<ul style="list-style-type: none"> <li>- Lambton (ESC)—786.4</li> <li>- Huron Perth (SW)—830.3</li> <li>- City of Thunder Bay (NW)—870.7</li> <li>- North Simcoe (NSM)—912.3</li> <li>- Cochrane (NE)—1,016.1</li> <li>- Sudbury-Manitoulin-Parry Sound (NE)—1,029.0</li> <li>- Algoma (NE)—1,096.7</li> <li>- James and Hudson Bay Coasts (NE)—1,648.9</li> </ul>

- Residents of the following sub-regions had the lowest and highest admission rate per 100,000 population age 15+:

Lowest Admission Rate	Highest Admission Rate
<ul style="list-style-type: none"> <li>- Niagara North West (HNHB)—217.4</li> <li>- Bolton-Caledon (CW)—233.7</li> <li>- North West Mississauga (MH)—238.4</li> <li>- Western York Region (C)—241.0</li> <li>- Scarborough North (CE)—253.5</li> <li>- Halton Hills (MH)—275.4</li> <li>- Eastern York Region (C)—282.8</li> <li>- Northumberland County (CE)—289.1</li> </ul>	<ul style="list-style-type: none"> <li>- Western Champlain (Ch)—725.7</li> <li>- Lambton (ESC)—755.2</li> <li>- City of Thunder Bay (NW)—801.7</li> <li>- Huron Perth (SW)—804.0</li> <li>- Cochrane (NE)—969.7</li> <li>- Sudbury-Manitoulin-Parry Sound (NE)—972.9</li> <li>- Algoma (NE)—1,052.1</li> <li>- James and Hudson Bay Coasts (NE)—1,573.1</li> </ul>

- Residents of the following sub-regions had the lowest and highest discharge rate per 100,000 population age 15+:

Lowest Admission Rate	Highest Admission Rate
<ul style="list-style-type: none"> <li>- Niagara North West (HNHB)—219.2</li> <li>- North West Mississauga (MH)—238.4</li> <li>- Western York Region (C)—241.4</li> <li>- Bolton-Caledon (CW)—242.3</li> <li>- Scarborough North (CE)—258.3</li> <li>- Eastern York Region (C)—287.5</li> <li>- Northumberland County (CE)—293.7</li> <li>- Halton Hills (MH)—294.0</li> </ul>	<ul style="list-style-type: none"> <li>- North Simcoe (NSM)—740.5</li> <li>- Lambton (ESC)—754.3</li> <li>- Huron Perth (SW)—801.4</li> <li>- City of Thunder Bay (NW)—812.5</li> <li>- Cochrane (NE)—965.2</li> <li>- Sudbury-Manitoulin-Parry Sound (NE)—983.1</li> <li>- Algoma (NE)—1,060.1</li> <li>- James and Hudson Bay Coasts (NE)—1,573.1</li> </ul>

- Between 2013/14 and 2016/17, the active case, admission and discharge rates increased by approximately 4.9%, 5.9% and 6.6%, respectively.



### Adult designated mental health unit utilization by LHIN of patient residence, 2016/17

LHIN of Patient	Volume				Mean LOS	% Outflow	Range across sub-regions Mean LOS
	Active Cases	Admissions	Discharges	Total Days			
Erie St. Clair	3,182	3,000	2,999	63,263	21.1	7.9%	14.8 – 45.2
South West	5,582	5,191	5,203	132,660	25.5	<b>6.5%</b>	12.7 – 32.8
Waterloo Wellington	3,174	2,923	2,963	80,869	27.3	8.7%	17.9 – 31.9
Hamilton Niagara Haldimand Brant	6,434	6,045	6,064	139,282	23.0	9.2%	13.6 – 38.3
Central West	2,750	2,627	2,643	40,890	<b>15.5</b>	<u>28.0%</u>	10.4 – 18.3
Mississauga Halton	3,577	3,379	3,395	64,661	<b>19.0</b>	<u>26.8%</u>	16.9 – 22.9
Toronto Central	6,080	5,629	5,673	155,300	27.4	16.0%	19.4 – 34.7
Central	5,846	5,538	5,587	103,222	<b>18.5</b>	<u>32.5%</u>	14.9 – 22.3
Central East	6,696	6,291	6,322	132,820	21.0	19.9%	15.9 – 26.1
South East	2,279	2,079	2,077	65,281	<u>31.4</u>	12.5%	18.4 – 41.4
Champlain	6,174	5,773	5,822	145,161	24.9	<b>4.3%</b>	15.9 – 30.3
North Simcoe Muskoka	2,782	2,549	2,595	86,726	<u>33.4</u>	11.7%	19.6 – 103.8
North East	4,528	4,252	4,292	106,739	24.9	7.9%	13.8 – 52.8
North West	1,421	1,314	1,323	46,236	<u>34.9</u>	<b>4.1%</b>	9.8 – 83.8
Unknown LHIN	3,182	3,000	2,999	63,263	21.1	-	-
Out-of-province	5,582	5,191	5,203	132,660	25.5	-	-
Ontario	3,174	2,923	2,963	80,869	27.3	-	9.8 – 103.8

Highest 3 LHINs are in *italics*. Lowest 3 LHINs are in **bold**.

## Adult designated mental health unit utilization rates by LHIN of patient residence, 2016/17

LHIN of Patient	Rates per 100,000 Population Age 15+					
	Active Cases	Admissions	Discharges	Range Across sub-regions		
				Active Cases	Admissions	Discharges
Erie St. Clair	589.6	555.9	555.7	359.6 – 786.4	334.4 – 755.2	342.2 – 754.3
South West	<i>678.8</i>	<i>631.2</i>	<i>632.7</i>	639.5 – 830.3	596.5 – 804.0	596.9 – 801.4
Waterloo Wellington	488.9	450.3	456.4	378.4 – 566.5	352.5 – 516.6	344.7 – 536.6
Hamilton Niagara Haldimand Brant	520.6	489.1	490.7	239.9 – 734.4	217.4 – 713.0	219.2 – 714.6
Central West	<b>361.1</b>	<b>344.9</b>	<b>347.0</b>	251.0 – 491.6	233.7 – 477.1	242.3 – 472.1
Mississauga Halton	<b>341.9</b>	<b>323.0</b>	<b>324.5</b>	255.0 – 433.2	238.4 – 414.4	238.4 – 412.5
Toronto Central	551.5	510.6	514.6	430.6 – 707.7	406.6 – 654.4	405.0 – 650.9
Central	<b>367.8</b>	<b>348.4</b>	<b>351.5</b>	252.7 – 508.2	241.0 – 484.8	241.4 – 481.7
Central East	487.4	457.9	460.1	270.2 – 632.9	253.5 – 597.5	258.3 – 601.2
South East	530.9	484.3	483.8	333.1 – 610.8	304.4 – 562.3	304.4 – 567.2
Champlain	549.3	513.7	518.0	352.7 – 759.9	328.1 – 725.7	329.8 – 733.3
North Simcoe Muskoka	672.3	616.0	627.1	494.2 – 912.3	363.3 – 720.4	474.2 – 740.5
North East	<i>943.8</i>	<i>886.3</i>	<i>894.6</i>	632.6 – 1,648.9	558.4 – 1,573.1	571.3 – 1,573.1
North West	<i>725.8</i>	<i>671.1</i>	<i>675.7</i>	453.4 – 870.7	416.7 – 801.7	386.0 – 812.5
Unknown LHIN	589.6	555.9	555.7	-	-	-
Out-of-province	678.8	631.2	632.7	-	-	-
Ontario	488.9	450.3	456.4	239.9 – 1,648.9	217.4 – 1,573.1	219.2 – 1,573.1

Highest 3 LHINs are in *italics*. Lowest 3 LHINs are in **bold**.

## Surgery & Diagnostic Imaging

### Day Surgery and Cardiac Catheterization Utilization

#### Notes:

This chapter and the accompanying workbook contain analysis on day surgery and cardiac catheterization visits in ambulatory care for 2003/04 to 2016/17. Analysis is based on data from the National Ambulatory Care Reporting System.

Detailed analysis is provided in the accompanying Excel workbook:

#### **5.3 Day Surgery (2018) final.xlsx**

The workbook contains:

1. LHIN of Hospital Summary: Day surgery and cardiac catheterization visits, 2003/04-2016/17; mean CACS-RIW weights, 2014/15-2016/17; and rankings, by LHIN of hospital
2. LHIN of Patient Summary: Day surgery and cardiac catheterization visits and crude visit rates, 2003/04-2016/17; mean CACS-RIW weights, 2014/15-2016/17; and rankings, by LHIN of patient
3. Sub-region of Patient: Day surgery and cardiac catheterization visits and crude visit rates, 2016/17, and rankings, by sub-region of residence
4. Inflow Outflow: Day surgery and cardiac catheterization visits for LHIN and sub-region patients by LHIN of hospital, 2016/17
5. Notes, and details describing how the analysis was done

**Prepared June 2018**

**Excel workbooks provided by:** Health Analytics Branch, Ministry of Health and Long Term Care  
**Analysis & interpretation prepared by:** *Joan Tonon, North East LHIN*

### Day Surgery and Cardiac Catheterization Visits

- In 2016/17, there were 1,322,943 day surgery and ambulatory cardiac catheterization visits to Ontario hospitals.
  - Between 2013/14 and 2016/17, there was an increase of 5.8% in Ontario hospital's day surgery and cardiac catheterization visits.
  - There was wide variation in the change in number of visits between 2013/14 and 2016/17 within LHINs. **Central** LHIN hospitals had the **largest** increase. **Hamilton Niagara Haldimand Brant** LHIN hospitals had the **largest** decrease.
- There were 1,313,103 day surgery and ambulatory cardiac catheterization visits for Ontario residents. There was an increase in visits of 5.8% between 2013/14 and 2016/17.
  - **South West** LHIN residents had the **largest** increase, of 11.1%. **Hamilton Niagara Haldimand Brant** LHIN residents had the only decrease, of 1.3%.
  - Ontario residents had 93.9 day surgery and cardiac catheterization visits per 1,000 population.
  - This rate varied from 66.8 to 151.0 across the LHINs. **Toronto Central** LHIN residents had the lowest rate whereas **North East** LHIN residents had the highest rate.
    - Within the sub-regions, day surgery and cardiac catheterization visits per 1,000 population varied from 56.8 to 171.4.

- Residents of the following sub-regions had the lowest and highest rates of day surgery and cardiac catheterization visits per 1,000 population:

Lowest Active Case Rate	Highest Active Case Rate
<ul style="list-style-type: none"> <li>- North West Mississauga (MH)</li> <li>- James and Hudson Bay Coasts (NE)</li> <li>- East Mississauga (MH)</li> <li>- Mid-West Toronto (TC)</li> <li>- Brampton (CW)</li> <li>- Mid-East Toronto (TC)</li> <li>- Bramalea (CW)</li> <li>- South West Mississauga (MH)</li> </ul>	<ul style="list-style-type: none"> <li>- Rural Hastings (SE)</li> <li>- Cochrane (NE)</li> <li>- Quinte (SE)</li> <li>- Nipissing-Temiskaming (NE)</li> <li>- Haliburton County and City Of Kawartha Lakes (CE)</li> <li>- Peterborough City and County (CE)</li> <li>- Lanark, Leeds &amp; Grenville (SE)</li> <li>- Algoma (NE)</li> </ul>

- The visit rate increased by 2.4% for Ontario residents between 2013/14 and 2016/17.
- Within LHINs, the change in rate varied from a decrease of 4.1% to an increase of 8.9%. **South West** LHIN had the **largest** increase and **Hamilton Niagara Haldimand Brant** LHIN had the **largest** decrease.
- For the proportion of visits to a LHIN's hospital(s) that were for residents who lived in a different LHIN (inflow) and the proportion of visits by the LHIN's residents that occurred in hospitals outside the LHIN (outflow), **Toronto Central** LHIN had the highest rate of inflow and **North West** LHIN had the lowest rate of inflow.
- **Central West** LHIN had the highest rate of outflow and **North West** LHIN had the lowest rate of outflow.
  - Outflow at the sub-region level varied from 0.9% to 64.3%.
  - Residents of the following sub-regions had the lowest and highest outflow for day surgery and cardiac catheterization:

Lowest Outflow	Highest Outflow
<ul style="list-style-type: none"> <li>- Eastern Ottawa (Ch)</li> <li>- Central Ottawa (Ch)</li> <li>- Northern (NW)</li> <li>- District of Kenora (NW)</li> <li>- Western Ottawa (Ch)</li> <li>- London Middlesex (SW)</li> <li>- City of Thunder Bay (NW)</li> <li>- Kingston (SE)</li> </ul>	<ul style="list-style-type: none"> <li>- South Etobicoke (MH)</li> <li>- North Etobicoke Malton West Woodbridge (CW)</li> <li>- North York Central (C)</li> <li>- Bolton-Caledon (CW)</li> <li>- Rural Hastings (SE)</li> <li>- Scarborough North (CE)</li> <li>- North York West (C)</li> <li>- Eastern York Region (C)</li> </ul>

### Day surgery and cardiac catheterization utilization, Ontario, 2016/17

	Ontario	Ontario % change 2013/14 – 2016-17	Range within the LHINs	Range within sub- regions
<b>LHIN of hospital</b>				
Visits	1,322,943	5.8%	27,727 - 158,077	
<b>LHIN of patient</b>				
Total population	13,982,984	3.1%	235,148 - 1,893,948	
Visits	1,313,103	5.8%	28,401 - 157,644	448 - 50,777
% Outflow visits			3.0% - 39.0%	0.9% - 64.3%
Visits per 1,000	93.9	2.4%	66.8 - 151.0	56.8 - 171.4
- age 0-17 years	22.2		13.9 - 38.4	11.1 - 64.4
- age 18-44 years	46.5		34.8 - 85.5	21.0 - 97.4
- age 45-64 years	125.3		93.9 - 183.0	81.3 - 215.5
- age 65-79 years	239.9		176.5 - 318.4	107.6 - 349.6
- age 80+ years	202.7		138.5 - 260.4	66.9 - 325.5

### Day surgery and cardiac catheterization utilization by LHIN, 2016/17

LHIN of hospital	LHIN of hospital		LHIN of patient		
	Visits	% Inflow	Visits	% Outflow	Visits per 1,000 population
Erie St. Clair	67,477	1.1%	76,060	12.2%	118.3
South West	111,247	14.5%	103,852	8.4%	105.8
Waterloo Wellington	67,970	9.0%	72,524	14.7%	92.6
Hamilton Niagara Haldimand Brant	136,823	6.3%	142,929	10.3%	97.8
Central West	53,862	25.7%	65,631	39.0%	70.2
Mississauga Halton	86,896	24.5%	90,229	27.3%	71.4
Toronto Central	158,077	58.4%	85,856	23.3%	66.8
Central	149,850	33.9%	150,877	34.4%	79.7
Central East	142,538	15.6%	157,644	23.7%	97.2
South East	61,664	6.6%	66,622	13.6%	133.8
Champlain	135,051	9.6%	126,032	3.1%	94.4
North Simcoe Muskoka	44,488	11.8%	54,211	27.6%	111.4
North East	79,273	1.9%	84,918	8.4%	151.0
North West	27,727	0.7%	28,401	3.0%	120.8
Ontario hospitals	1,322,943		1,313,103		93.9

## Surgical & Diagnostic Imaging Wait Times

### Notes:

This section and the accompanying workbook contain analysis based on a 5-year trend of 90<sup>th</sup> percentile wait 2 wait times, completed cases and wait queue (at the start of the fiscal year) for 8 provincial priority procedures. Procedures covered are Adult CT, Adult MRI, Cancer Surgery, Cataract Surgery, Hip Replacement, Knee Replacement, Paediatric CT (3-year trend) and Paediatric MRI (3-year trend). Data is presented for priority 2-4 cases combined. Performance metrics are suppressed if volume is less than 10 cases. Labels for graphs represent FY 2017-18 performance. For wait time performance, the 8 shortest and longest wait times by LHIN sub-region of patient residence are displayed in ranked order (more are mentioned when performance is tied).

Wait 1 is defined as the amount of time that the patient waits for a first consultation with a clinician. It is measured from the time the referral is received to the date the first consultation with a clinician occurs. Wait 2 is defined as the amount of time that the patient waits for surgical procedures. For surgical procedures, Wait 2 is measured from the Decision to Treat Date to the date the procedure is performed.

**\*Special note for Central West LHIN Adult/Paediatric MRI and CT reporting.** Technical issues disrupted the ability to send all Diagnostic Imaging (DI) Wait List entries to the Wait Time Information System starting February 2016. This created a critical data quality reporting issue for the DI wait times for William Osler Health System, the largest of two hospitals in the region, rendering the facility's wait times data unfit for public reporting. As William Osler Health System is the only facility in Central West LHIN reporting MRI wait times (both William Osler Health System and Headwaters Health Care Centre report CT wait times), all DI data specific to the Central West LHIN has been suppressed in this report.

Detailed analysis is provided in the accompanying Excel workbook:

***Access to Care Informatics, Cancer Care Ontario: IHSP SETP and Surgery and DI wait times trend final (May 16 2018)***

The excel workbook contains:

1. *Wait 2 wait times, completed cases and wait queue by Facility LHIN of Treatment (where the procedure was completed)*
2. *Wait 2 wait times, completed cases and wait queue by LHIN and LHIN Sub-region of Treatment (where the patient resided at the time of the procedure)*

**Prepared June 2018**

**Excel workbooks provided by:** Cancer Care Ontario

**Analysis & interpretation prepared by:** David Tanner, HNHB LHIN

## Ontario: Wait Times and Queue

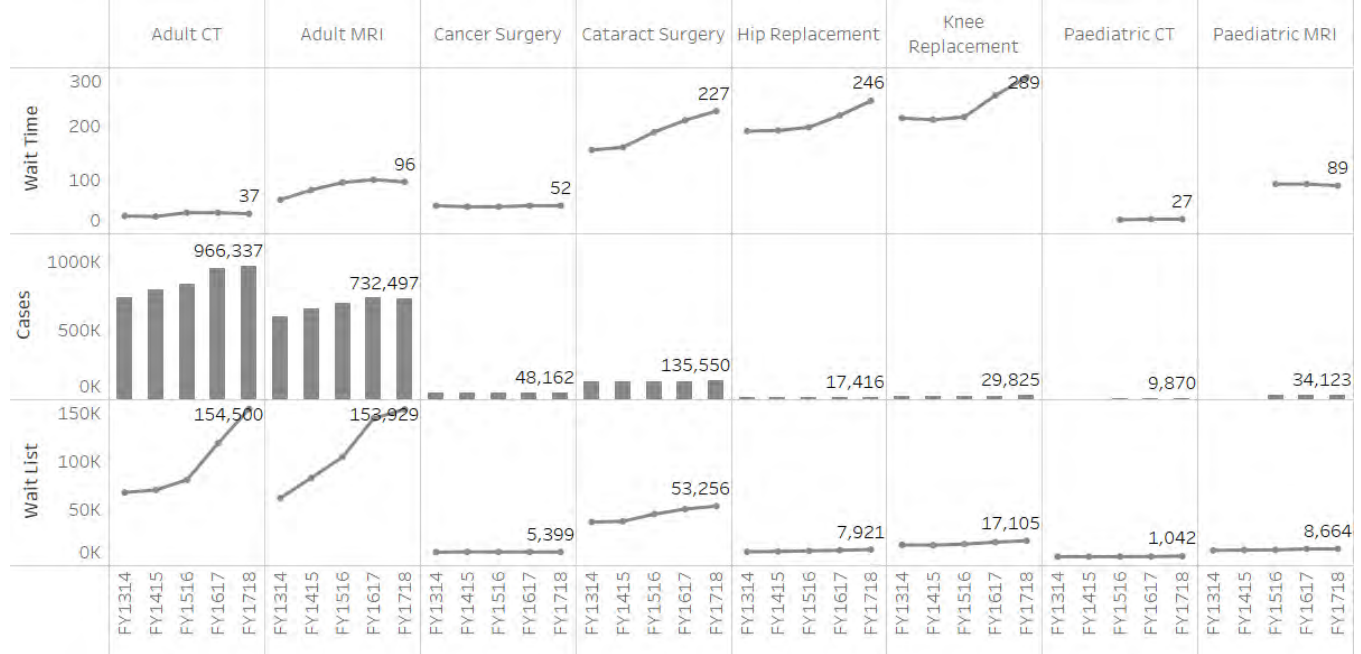
	Performance (2017-18)	Trend over time (2014-15 to 2017-18 unless specified)*	Range across the LHINs (of Treatment) (2017-18)	Range across all sub-regions (of Residence) (2017-18)
<b>Adult CT *</b>				
90 <sup>th</sup> Percentile Wait 2 Wait Time (Days)	37	Increasing	20-62	15-98
Wait List Queue (Start of Fiscal)	154,500	Increasing	1,446-49,757	24-7,269
<b>Adult MRI *</b>				
90 <sup>th</sup> Percentile Wait 2 Wait Time (Days)	96	Increasing	59-125	30-222
Wait List Queue (Start of Fiscal)	153,929	Increasing	2,282-39,731	41-6,795
<b>Cancer Surgery</b>				
90 <sup>th</sup> Percentile Wait 2 Wait Time (Days)	52	Flat	32-66	32-71
Wait List Queue (Start of Fiscal)	5,399	Flat	42-1,094	0-290
<b>Cataract Surgery</b>				
90 <sup>th</sup> Percentile Wait 2 Wait Time (Days)	227	Increasing	91-362	97-442
Wait List Queue (Start of Fiscal)	53,256	Increasing	721-6,779	20-2,049
<b>Hip Replacement</b>				
90 <sup>th</sup> Percentile Wait 2 Wait Time (Days)	246	Increasing	147-388	133-467
Wait List Queue (Start of Fiscal)	7,921	Increasing	136-1,347	0-515
<b>Knee Replacement</b>				
90 <sup>th</sup> Percentile Wait 2 Wait Time (Days)	289	Increasing	158-431	120-740
Wait List Queue (Start of Fiscal)	17,105	Increasing	245-2,544	19-1,153
<b>Paediatric CT *</b>				
90 <sup>th</sup> Percentile Wait 2 Wait Time (Days)	27	Flat	14-48	3-65
Wait List Queue (Start of Fiscal)	1,042	Increasing	5-208	0-106
<b>Paediatric MRI *</b>				
90 <sup>th</sup> Percentile Wait 2 Wait Time (Days)	89	Flat	59-125	56-154
Wait List Queue (Start of Fiscal)	8,664	Increasing	73-3,490	15-399

\*Excludes the majority of cases for **Central West** LHIN as William Osler Health System not included

\*Paediatric CT and MRI wait time data provided for FY2014-15 to FY2017-18 (3-year trend)

## Ontario Priority Procedures:

### Wait 2 90<sup>th</sup> Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends



## LHIN Comparison by Priority Procedure:

### Wait 2 90<sup>th</sup> Percentile Wait Time (Days) and Performance Rank (1 = Shortest Wait Time)

#### LHIN of Treatment

	FY1718							
	Adult CT	Adult MRI	Cancer Surgery	Cataract Surgery	Hip Replacement	Knee Replacement	Paediatric CT	Paediatric MRI
	ON = 37	ON = 96	ON = 52	ON = 227	ON = 246	ON = 289	ON = 27	ON = 89
ERIE ST.CLAIR	32 6	98 9	41 2	232 8	189 6	282 9	30 9	90 10
SOUTH WEST	24 2	59 1	54 9	267 10	388 14	431 14	27 6	123 12
WATERLOO WELLINGTON	41 7	70 4	42 6	282 11	363 13	400 13	33 10	67 3
HAMILTON NIAGARA HALDIMAND BRANT	50 11	91 8	66 14	187 5	326 12	391 11	37 12	89 8
CENTRAL WEST			62 13	130 2	228 9	394 12		
MISSISSAUGA HALTON	62 13	100 10	48 7	355 13	276 11	347 10	48 13	77 6
TORONTO CENTRAL	42 8	118 11	58 11	248 9	159 2	164 2	23 3	125 13
CENTRAL	47 9	120 12	41 2	91 1	147 1	158 1	36 11	93 11
CENTRAL EAST	20 1	64 3	41 2	169 4	172 3	194 5	14 1	59 1
SOUTH EAST	29 4	77 6	59 12	319 12	237 10	221 6	27 6	75 5
CHAMPLAIN	48 10	125 13	57 10	225 7	181 5	185 3	20 2	68 4
NORTH SIMCOE MUSKOKA	29 4	59 1	52 8	362 14	204 7	273 8	25 4	60 2
NORTH EAST	56 12	75 5	32 1	149 3	225 8	272 7	29 8	79 7
NORTH WEST	27 3	89 7	41 2	210 6	177 4	193 4	26 5	89 8



## Adult CT\*

- There were 966,337 adult CT scans completed in FY 2017-18; 13,715 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 37 days, 2 days shorter than the previous fiscal.
  - Range among LHINs (*of Treatment*) in FY 2017-18: 20 days (**shortest: Central East LHIN**) to 62 days (**longest: Mississauga Halton LHIN**).
- The wait list queue at the start of FY 2017-18 was 154,500 patients; a 30% increase from the start of the previous fiscal year (35,852 more queued).

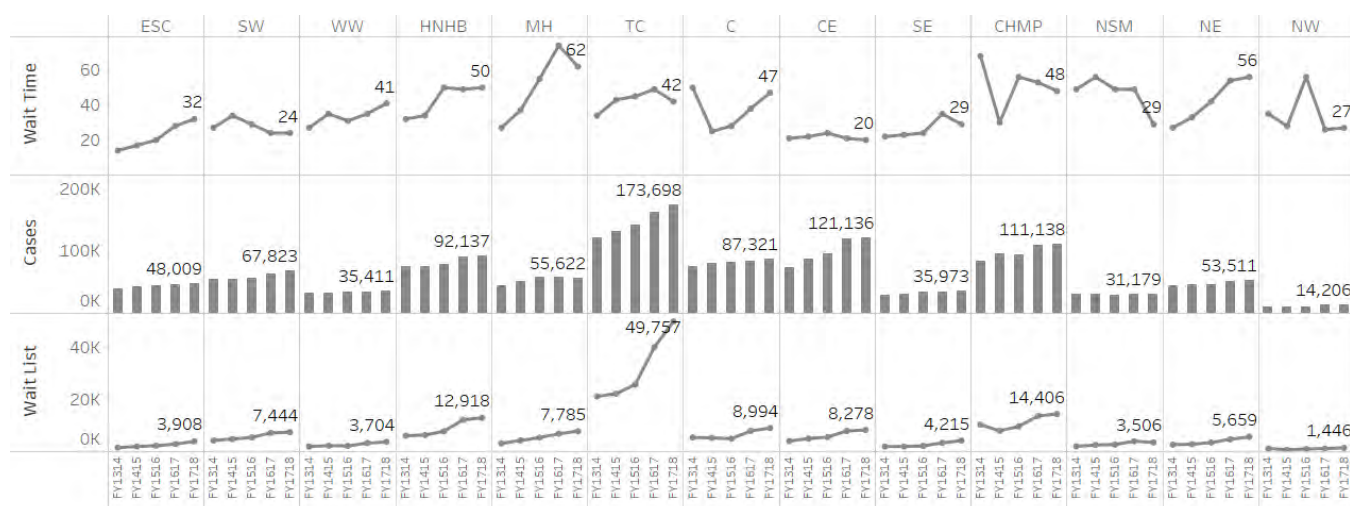
\*Excludes the majority of cases for **Central West LHIN** as William Osler Health System not included

## LHIN Comparison Adult CT:

### Wait 2 90<sup>th</sup> Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

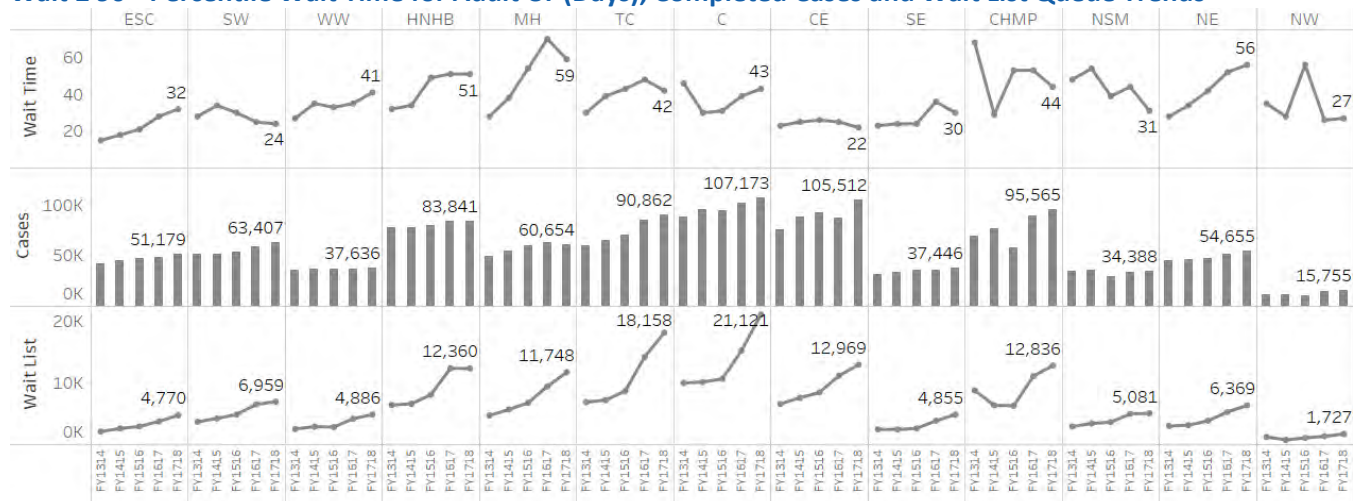
\*Note: **Central West LHIN** not included in CT summary

#### LHIN of Treatment



## LHIN of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Adult CT (Days), Completed Cases and Wait List Queue Trends



- Residents of the following sub-regions experienced the shortest and longest wait times for CT in FY 2017-18:

Shortest Wait Times	Longest Wait Times
<ul style="list-style-type: none"> <li>- Northumberland County (CE) – 15 days</li> <li>- District of Rainy River (NW) – 16 days</li> <li>- Northern (NW) – 18 days</li> <li>- District of Kenora (NW) – 18 days</li> <li>- Niagara (HNHB) – 19 days</li> <li>- Durham West (CE) – 20 days</li> <li>- Couchiching (NSM) – 21 days</li> <li>- Scarborough North (CE) – 21 days</li> <li>- Durham North East (CE) – 21 days</li> <li>- Scarborough South (CE) – 21 days</li> </ul>	<ul style="list-style-type: none"> <li>- Cochrane (NE) – 60 days</li> <li>- South West Mississauga (MH) – 63 days</li> <li>- North West Mississauga (MH) – 63 days</li> <li>- East Mississauga (MH) – 65 days</li> <li>- East Toronto (TC) – 66 days</li> <li>- Hamilton (HNHB) – 77 days</li> <li>- Western Ottawa (Ch) – 79 days</li> <li>- Sudbury-Manitoulin-Parry Sound (NE) – 98 days</li> </ul>

### Adult MRI\*

- There were 732,497 adult MRI scans completed in FY 2017-18; 4,007 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 96 days, 4 days shorter than the previous fiscal.
  - Range among LHINs (*of Treatment*) in FY 2017-18: 59 days (**shortest: South West LHIN**) to 125 days (**longest: Champlain LHIN**).
- The wait list queue at the start of FY 2017-18 was 153,929 patients; a 6% increase from the start of the previous fiscal year (9,361 more queued).

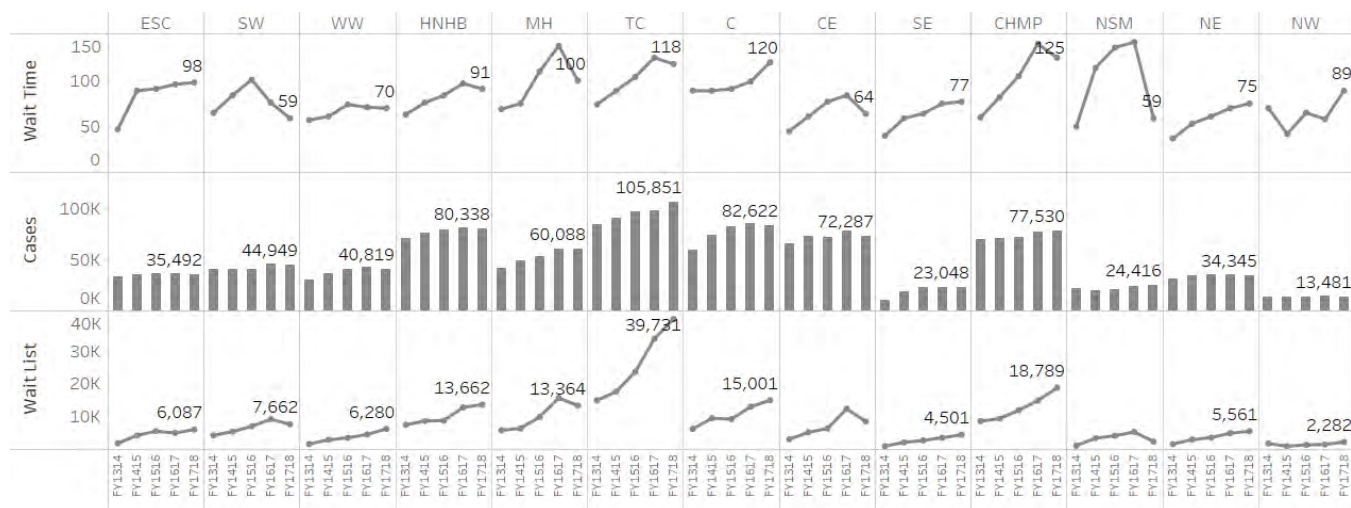
\*Excludes the majority of cases for **Central West** LHIN as William Osler Health System not included

### LHIN Comparison Adult MRI:

#### Wait 2 90<sup>th</sup> Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

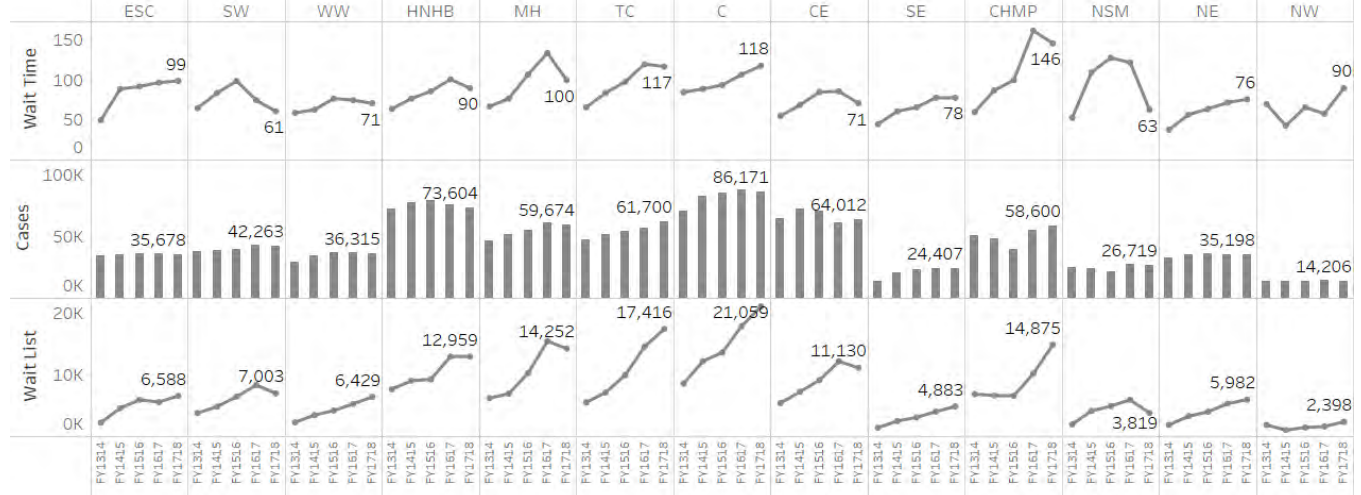
\*Note: **Central West** LHIN not included in MRI summary

#### LHIN of Treatment



## LHIN of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Adult MRI (Days), Completed Cases and Wait List Queue Trends



- Residents of the following sub-regions experienced the shortest and longest wait times for MRI in FY 2017-18:

Shortest Wait Times	Longest Wait Times
<ul style="list-style-type: none"> <li>- Lambton (ESC) – 30 days</li> <li>- Northumberland County (CE) – 38 days</li> <li>- Quinte (SE) – 41 days</li> <li>- Rural Hastings (SE) – 48 days</li> <li>- Huron Perth (SW) – 52 days</li> <li>- Haliburton County and City Of Kawartha Lakes (CE) – 53 days</li> <li>- Algoma (NE) – 57 days</li> <li>- Couchiching (NSM) – 59 days</li> <li>- Grey Bruce (SW) – 59 days</li> <li>- Oxford (SW) – 59 days</li> <li>- Peterborough City and County (CE) – 59 days</li> <li>- Western Champlain (Ch) – 59 days</li> </ul>	<ul style="list-style-type: none"> <li>- Central Ottawa (Ch) – 222 days</li> <li>- Eastern Ottawa (Ch) – 187 days</li> <li>- North York West (C) – 134 days</li> <li>- North York Central (C) – 128 days</li> <li>- North Toronto (TC) – 128 days</li> <li>- Eastern Champlain (Ch) – 125 days</li> <li>- Western York Region (C) – 122 days</li> <li>- East Mississauga (MH) – 120 days</li> </ul>

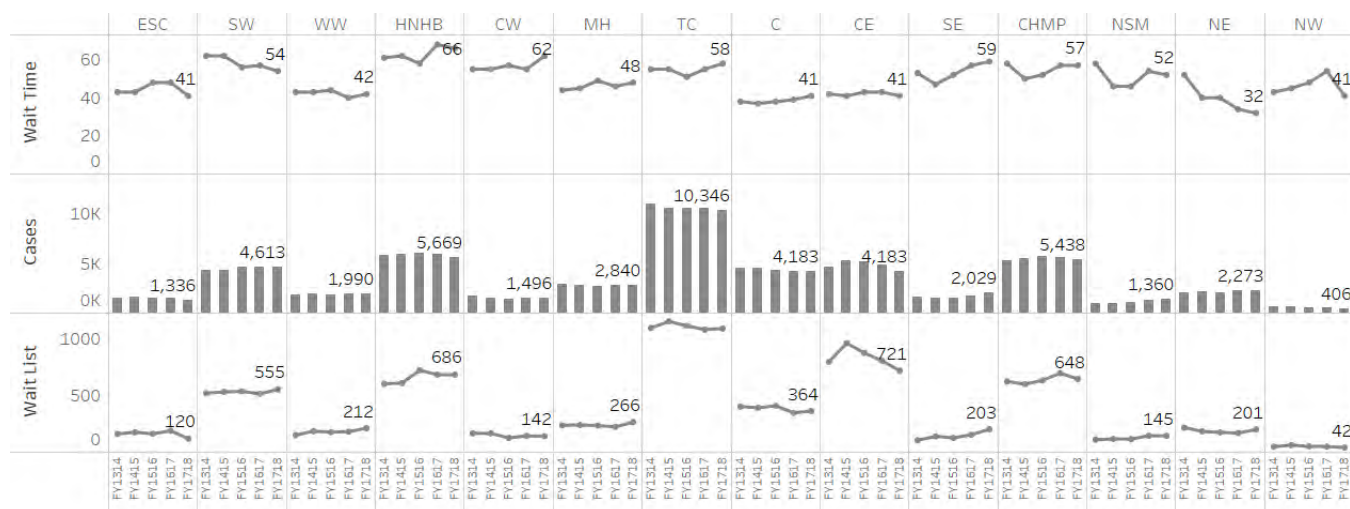
## Cancer Surgery

- There were 48,162 cancer surgeries completed in FY 2017-18; 1,058 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 52 days, similar to the previous fiscal.
  - Range among LHINs (*of Treatment*) in FY 2017-18: 32 days (**shortest: North East LHIN**) to 66 days (**longest: Hamilton Niagara Haldimand Brant LHIN**).
- The wait list queue at the start of FY 2017-18 was 5,399 patients, similar to the previous fiscal year.

## LHIN Comparison Cancer Surgery:

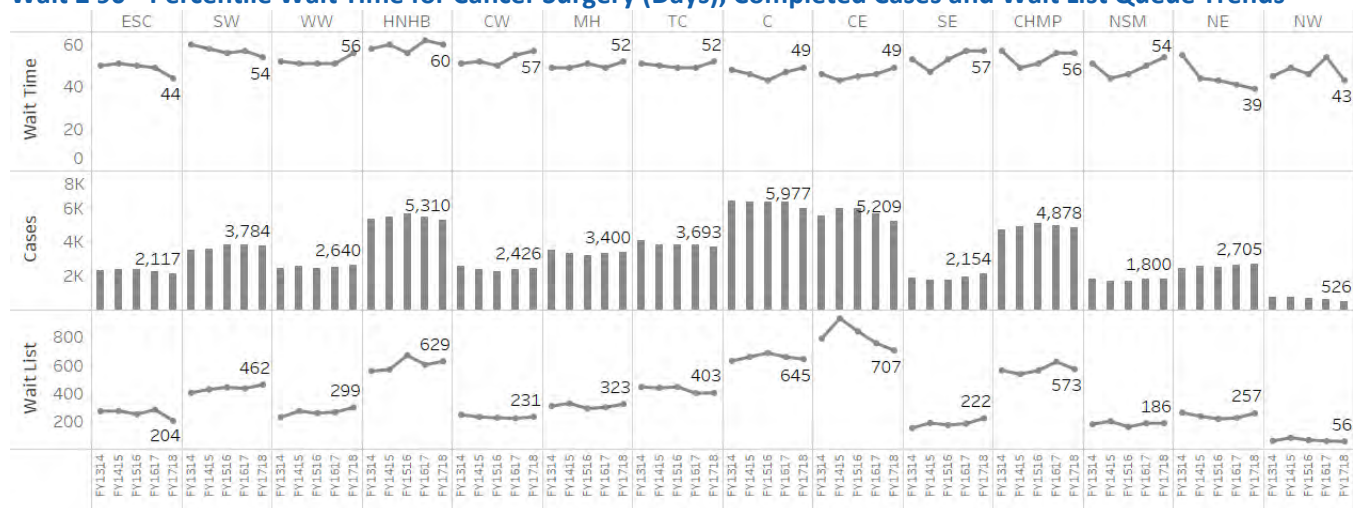
### Wait 2 90<sup>th</sup> Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

#### LHIN of Treatment



## LHIN of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Cancer Surgery (Days), Completed Cases and Wait List Queue Trends



- Residents of the following sub-regions experienced the shortest and longest wait times for Cancer surgeries in FY 2017-18:

Shortest Wait Times	Longest Wait Times
<ul style="list-style-type: none"> <li>- Sudbury-Manitoulin-Parry Sound (NE) – 32 days</li> <li>- Nipissing-Temiskaming (NE) – 33 days</li> <li>- Northern (NW) – 36 days</li> <li>- Cochrane (NE) – 40 days</li> <li>- Windsor (ESC) – 40 days</li> <li>- City of Thunder Bay (NW) – 41 days</li> <li>- Durham North East (CE) – 41 days</li> <li>- Lambton (ESC) – 42 days</li> </ul>	<ul style="list-style-type: none"> <li>- District of Rainy River (NW) – 60 days</li> <li>- Haldimand Norfolk (HNHB) – 60 days</li> <li>- Kingston (SE) – 60 days</li> <li>- Kitchener-Waterloo-Wilmot-Wellesley-Woolwich (WW) – 60 days</li> <li>- Niagara North West (HNHB) – 61 days</li> <li>- Halton Hills (MH) – 62 days</li> <li>- Lanark, Leeds &amp; Grenville (SE) – 63 days</li> <li>- Brant (HNHB) – 65 days</li> <li>- Elgin (SW) – 66 days</li> <li>- Milton (MH) – 69 days</li> <li>- Hamilton (HNHB) – 71 days</li> </ul>



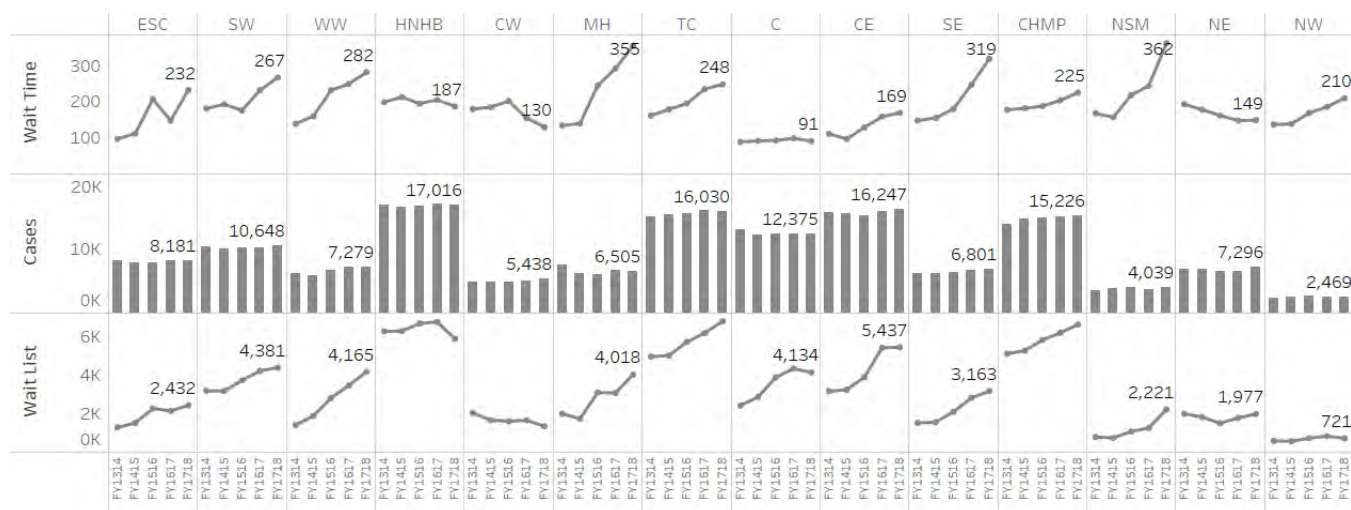
## Cataract Surgery

- There were 135,550 cataract surgeries completed in FY 2017-18; 2,249 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 227 days, 17 days longer than the previous fiscal.
  - Range among LHINs (*of Treatment*) in FY 2017-18: 91 days (**shortest: Central LHIN**) to 362 days (**longest: North Simcoe Muskoka LHIN**).
- The wait list queue at the start of FY 2017-18 was 53,256 patients; a 6% increase from the start of the previous fiscal year (3,205 more queued).

## LHIN Comparison Cataract Surgery:

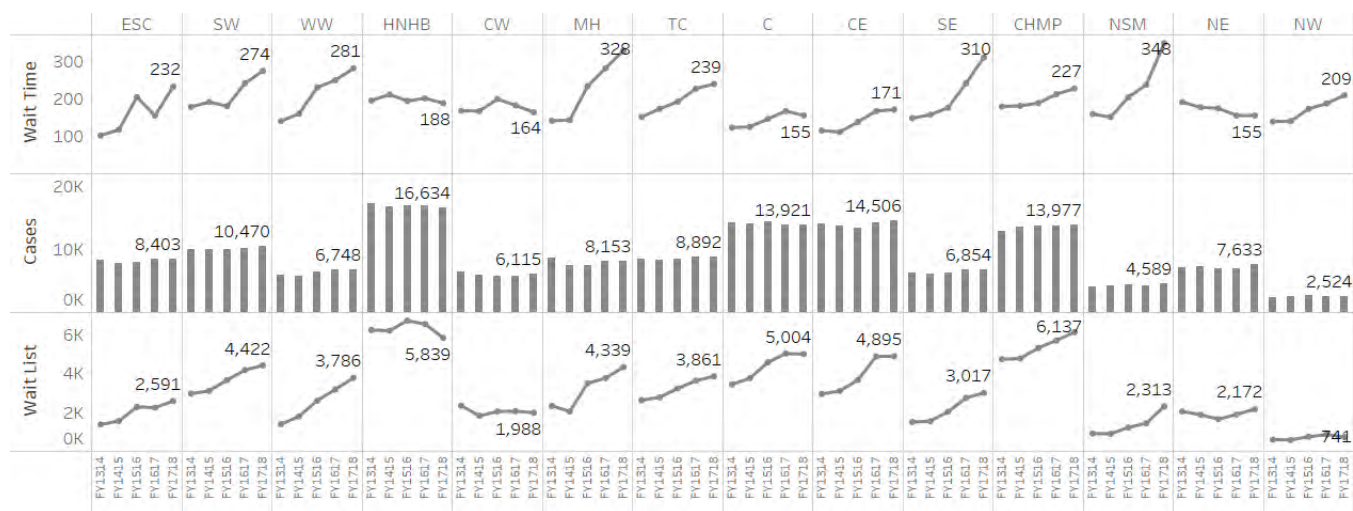
### Wait 2 90<sup>th</sup> Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

#### LHIN of Treatment



## LHIN of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Cataract Surgery (Days), Completed Cases and Wait List Queue Trends



- Residents of the following sub-regions experienced the shortest and longest wait times for cataract surgeries in FY 2017-18:

Shortest Wait Times	Longest Wait Times
<ul style="list-style-type: none"> <li>Chatham City Centre (ESC) – 97 days</li> <li>Rural Kent (ESC) – 99 days</li> <li>Northern York Region (C) – 103 days</li> <li>Northumberland County (CE) – 112 days</li> <li>South Simcoe (C) – 114 days</li> <li>Algoma (NE) – 118 days</li> <li>Nipissing-Temiskaming (NE) – 125 days</li> <li>Hamilton (HNHB) – 133 days</li> <li>Western York Region (C) – 133 days</li> </ul>	<ul style="list-style-type: none"> <li>James and Hudson Bay Coasts (NE) – 349 days</li> <li>Lanark, Leeds &amp; Grenville (SE) – 358 days</li> <li>Oakville (MH) – 362 days</li> <li>South Georgian Bay (NSM) – 369 days</li> <li>Muskoka (NSM) – 370 days</li> <li>North Simcoe (NSM) – 397 days</li> <li>Haldimand Norfolk (HNHB) – 425 days</li> <li>Oxford (SW) – 442 days</li> </ul>



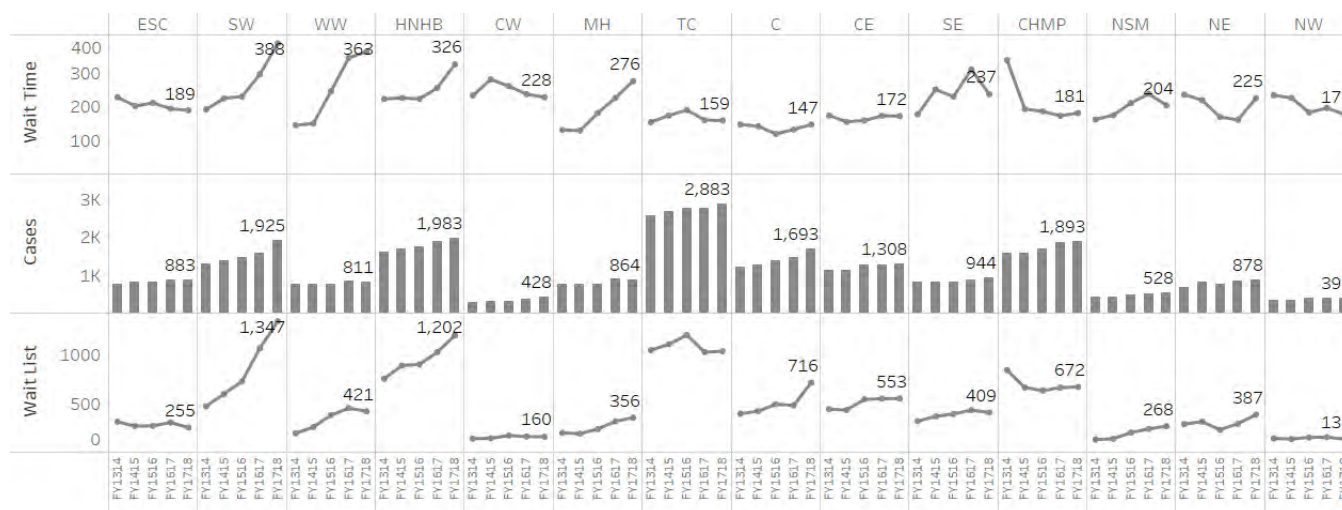
## Hip Replacement

- There were 17,416 hip replacement surgeries completed in FY 2017-18; 953 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 246 days, 27 days longer than the previous fiscal.
  - Range among LHINs (*of Treatment*) in FY 2017-18: 147 days (**shortest: Central LHIN**) to 388 days (**longest: South West LHIN**).
- The wait list queue at the start of FY 2017-18 was 7,921 patients; a 10% increase from the start of the previous fiscal year (731 more queued).

## LHIN Comparison Hip Replacement:

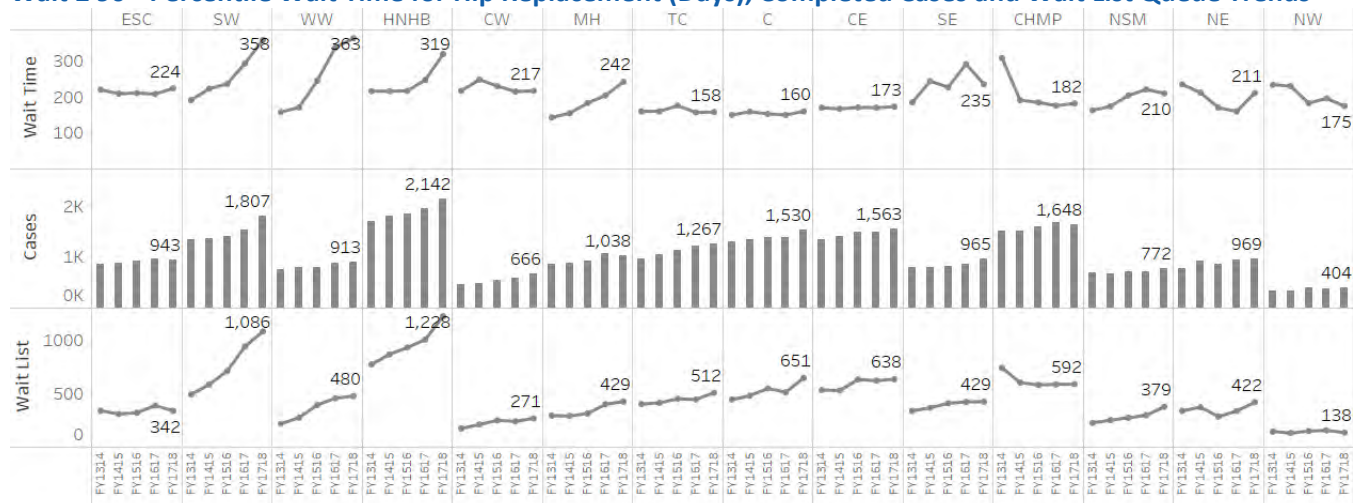
### Wait 2 90<sup>th</sup> Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

#### LHIN of Treatment



## LHIN of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Hip Replacement (Days), Completed Cases and Wait List Queue Trends



- Residents of the following sub-regions experienced the shortest and longest wait times for hip replacement surgeries in FY 2017-18:

Shortest Wait Times	Longest Wait Times
<ul style="list-style-type: none"> <li>Scarborough North (CE) – 133 days</li> <li>Peterborough City and County (CE) – 135 days</li> <li>North Toronto (TC) – 138 days</li> <li>North York Central (C) – 144 days</li> <li>Western Ottawa (Ch) – 146 days</li> <li>Mid-East Toronto (TC) – 148 days</li> <li>Mid-West Toronto (TC) – 149 days</li> <li>Nipissing-Temiskaming (NE) – 149 days</li> <li>North York West (C) – 149 days</li> </ul>	<ul style="list-style-type: none"> <li>Hamilton (HNHB) – 331 days</li> <li>Cochrane (NE) – 333 days</li> <li>Kingston (SE) – 333 days</li> <li>London Middlesex (SW) – 388 days</li> <li>Kitchener-Waterloo-Wilmot-Wellesley-Woolwich (WW) – 391 days</li> <li>Haldimand Norfolk (HNHB) – 393 days</li> <li>Elgin (SW) – 402 days</li> <li>Brant (HNHB) – 467 days</li> </ul>

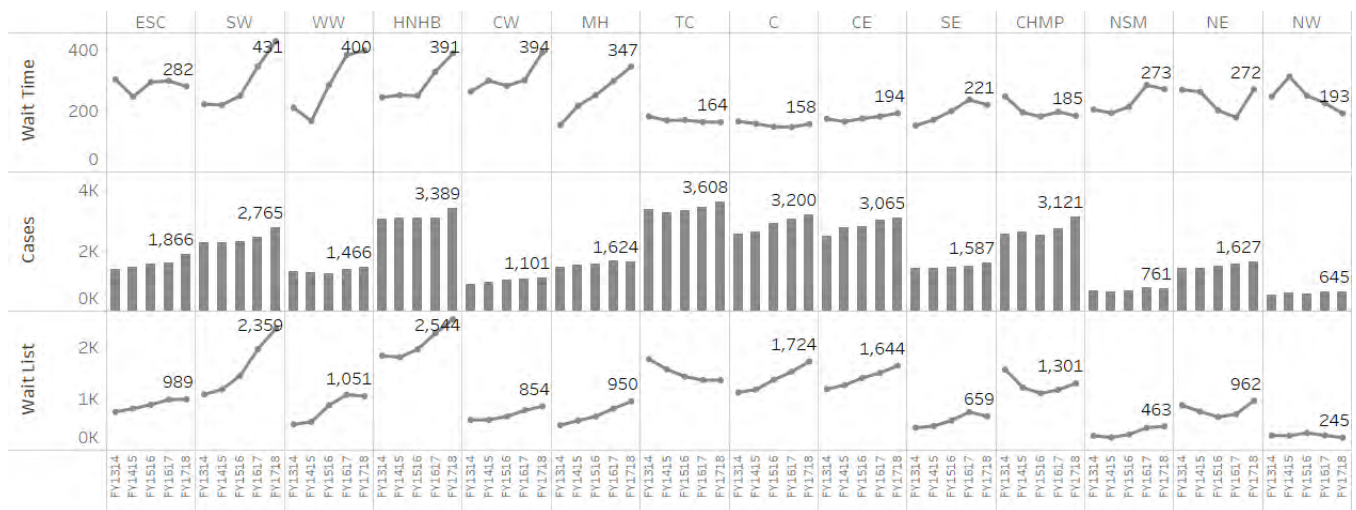
## Knee Replacement

- There were 29,825 knee replacement surgeries completed in FY 2017-18; 1,864 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 289 days, 33 days longer than the previous fiscal.
  - Range among LHINs (*of Treatment*) in FY 2017-18: 158 days (**shortest: Central LHIN**) to 431 days (**longest: South West LHIN**)
- The wait list queue at the start of FY 2017-18 was 17,105 patients; a 10% increase from the start of the previous fiscal year (1,491 more queued).

## LHIN Comparison Knee Replacement:

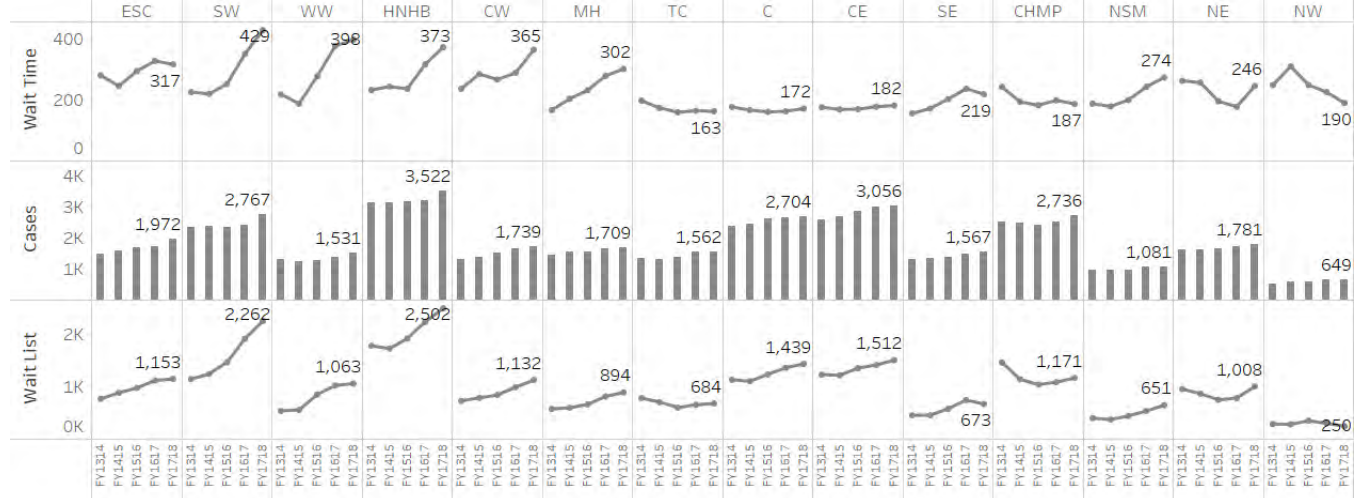
### Wait 2 90<sup>th</sup> Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

#### LHIN of Treatment



## LHIN of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Knee Replacement (Days), Completed Cases and Wait List Queue Trends



- Residents of the following sub-regions experienced the shortest and longest wait times for knee replacement surgeries in FY 2017-18:

Shortest Wait Times	Longest Wait Times
<ul style="list-style-type: none"> <li>District of Rainy River (<b>NW</b>) – 120 days</li> <li>Western Ottawa (<b>Ch</b>) – 139 days</li> <li>North Toronto (<b>TC</b>) – 145 days</li> <li>Western Champlain (<b>Ch</b>) – 145 days</li> <li>District of Kenora (<b>NW</b>) – 147 days</li> <li>Mid-East Toronto (<b>TC</b>) – 152 days</li> <li>Mid-West Toronto (<b>TC</b>) – 153 days</li> <li>North York West (<b>C</b>) – 159 days</li> </ul>	<ul style="list-style-type: none"> <li>Kitchener-Waterloo-Wilmot-Wellesley-Woolwich (<b>WW</b>) – 444 days</li> <li>Elgin (<b>SW</b>) – 472 days</li> <li>South Georgian Bay (<b>NSM</b>) – 475 days</li> <li>Rural Kent (<b>ESC</b>) – 486 days</li> <li>Haldimand Norfolk (<b>HNHB</b>) – 503 days</li> <li>London Middlesex (<b>SW</b>) – 521 days</li> <li>Chatham City Centre (<b>ESC</b>) – 598 days</li> <li>Brant (<b>HNHB</b>) – 740 days</li> </ul>

## Paediatric CT\*

- There were 9,870 paediatric CT scans completed in FY 2017-18; 301 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 27 days, similar to the previous fiscal.
  - Range among LHINs (*of Treatment*) in FY 2017-18: 14 days (**shortest: Central East LHIN**) to 48 days (**longest: Mississauga Halton LHIN**).
- The wait list queue at the start of FY 2017-18 was 1,042 patients; a 47% increase from the start of the previous fiscal year (334 more queued).

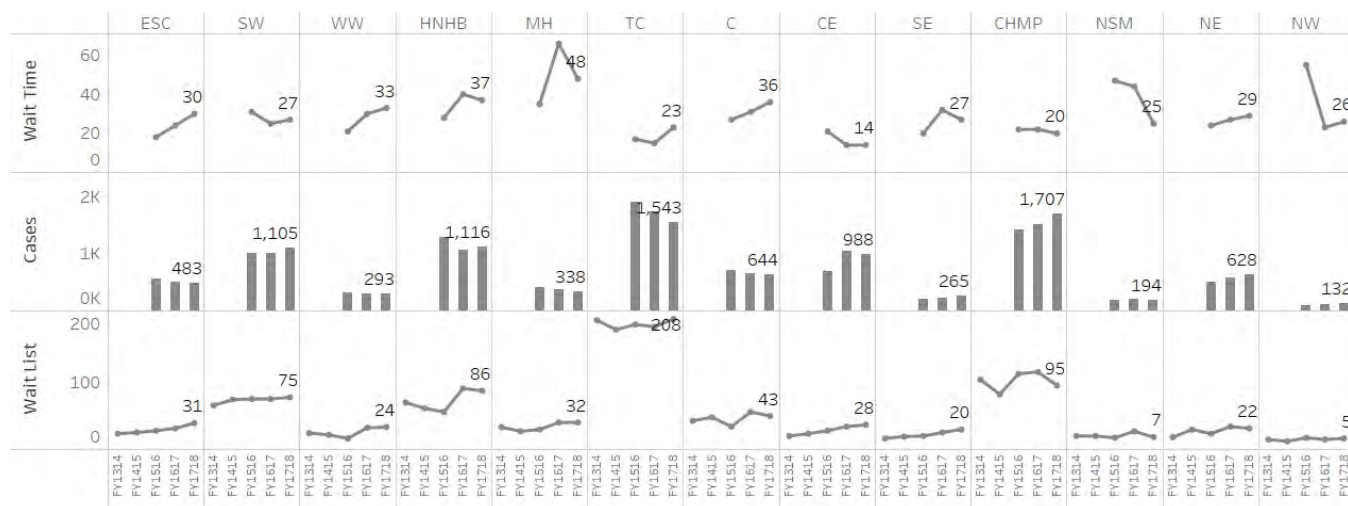
\*Excludes the majority of cases for **Central West LHIN** as William Osler Health System not included

## LHIN Comparison Paediatric CT:

### Wait 2 90<sup>th</sup> Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

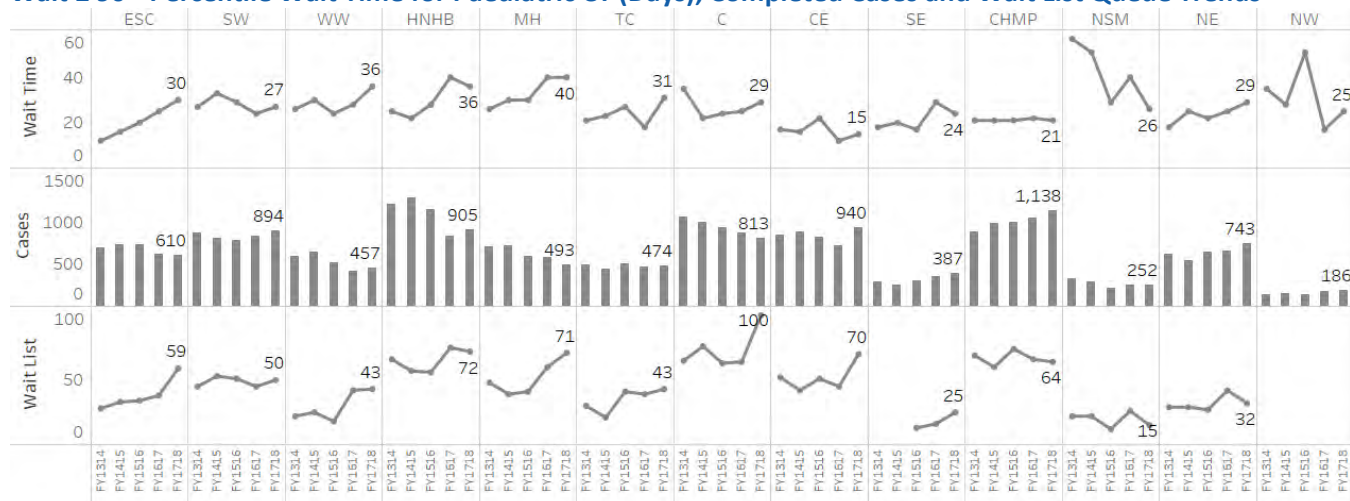
\*Note: **Central West LHIN** not included in CT summary

#### LHIN of Treatment



## LHIN of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Paediatric CT (Days), Completed Cases and Wait List Queue Trends



- Residents of the following sub-regions experienced the shortest and longest wait times for pediatric CT scans in FY 2017-18:

Shortest Wait Times	Longest Wait Times
<ul style="list-style-type: none"> <li>- Northumberland County (CE) – 3 days</li> <li>- Peterborough City and County (CE) – 4 days</li> <li>- District of Rainy River (NW) – 9 days</li> <li>- Northern (NW) – 10 days</li> <li>- District of Kenora (NW) – 11 days</li> <li>- Couchiching (NSM) – 13 days</li> <li>- Mid-East Toronto (TC) – 14 days</li> <li>- Durham West (CE) – 15 days</li> <li>- Scarborough South (CE) – 15 days</li> </ul>	<ul style="list-style-type: none"> <li>- Hamilton (HNH) – 40 days</li> <li>- Lambton (ESC) – 40 days</li> <li>- Rural Frontenac, Lennox &amp; Addington (SE) – 41 days</li> <li>- Western York Region (C) – 41 days</li> <li>- East Mississauga (MH) – 46 days</li> <li>- South West Mississauga (MH) – 48 days</li> <li>- Sudbury-Manitoulin-Parry Sound (NE) – 60 days</li> <li>- South Etobicoke (MH) – 65 days</li> </ul>



### Paediatric MRI\*

- There were 34,123 paediatric MRI scans completed in FY 2017-18; 729 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 89 days, 3 days shorter than the previous fiscal.
  - Range among LHINs (*of Treatment*) in FY 2017-18: 59 days (**shortest: Central East LHIN**) to 125 days (**longest: Toronto Central LHIN**).
- The wait list queue at the start of FY 2017-18 was 8,664 patients, similar to the previous fiscal year.

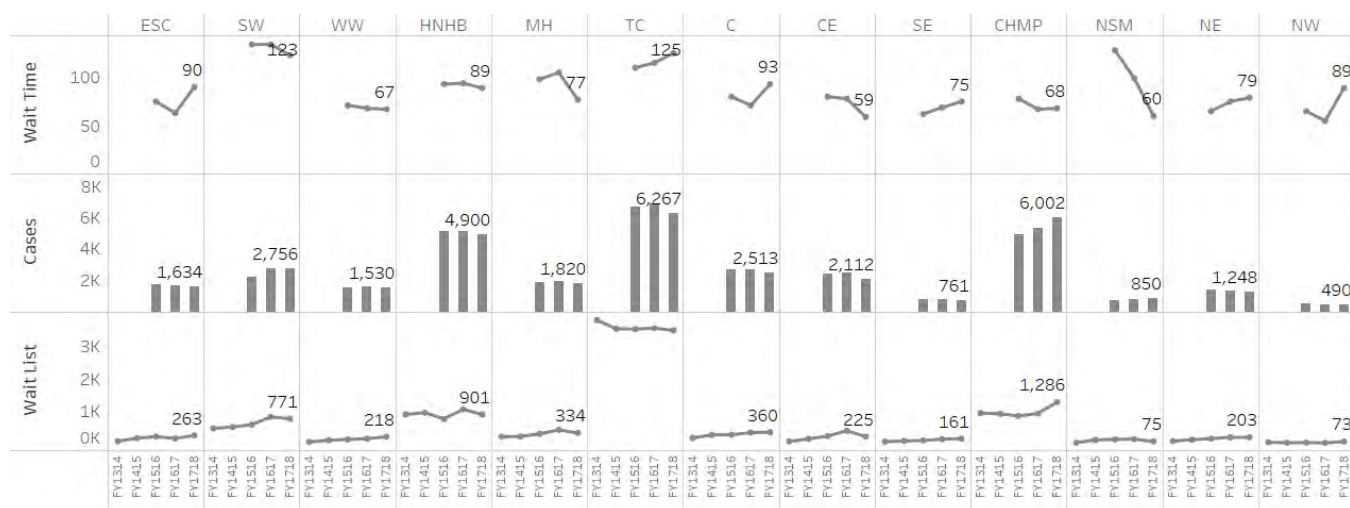
\*Excludes the majority of cases for **Central West LHIN** as William Osler Health System not included

### LHIN Comparison Paediatric MRI:

#### Wait 2 90<sup>th</sup> Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

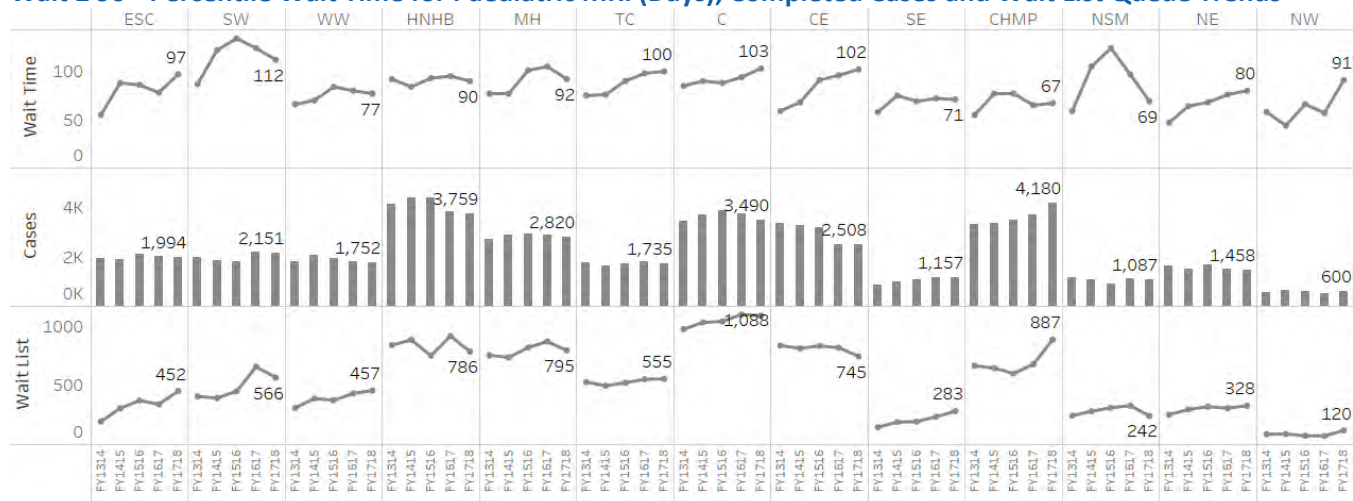
\*Note: **Central West LHIN** not included in MRI summary

#### LHIN of Treatment



## LHIN of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Paediatric MRI (Days), Completed Cases and Wait List Queue Trends



- Residents of the following sub-regions experienced the shortest and longest wait times for pediatric MRI scans in FY 2017-18:

Shortest Wait Times	Longest Wait Times
<ul style="list-style-type: none"> <li>- Chatham City Centre (ESC) – 56 days</li> <li>- Muskoka (NSM) – 59 days</li> <li>- Algoma (NE) – 60 days</li> <li>- Rural Hastings (SE) – 61 days</li> <li>- Quinte (SE) – 62 days</li> <li>- South Georgian Bay (NSM) – 63 days</li> <li>- Western Ottawa (Ch) – 63 days</li> <li>- Couchiching (NSM) – 67 days</li> <li>- Haliburton County and City Of Kawartha Lakes (CE) – 67 days</li> <li>- Western Champlain (Ch) – 67 days</li> </ul>	<ul style="list-style-type: none"> <li>- East Mississauga (MH) – 113 days</li> <li>- Western York Region (C) – 113 days</li> <li>- Peterborough City and County (CE) – 115 days</li> <li>- London Middlesex (SW) – 121 days</li> <li>- Huron Perth (SW) – 127 days</li> <li>- Oxford (SW) – 131 days</li> <li>- Scarborough North (CE) – 152 days</li> <li>- Elgin (SW) – 154 days</li> </ul>



## Oncology and Dialysis

### Notes:

This chapter and the accompanying workbook contain analysis based on ambulatory oncology (chemotherapy and radiotherapy treatments) and ambulatory dialysis visits (hemodialysis and peritoneal dialysis) in hospitals in Ontario for 2014/15-2016/17.

Detailed analysis is provided in the accompanying Excel workbook:

### **5.9 Oncology and Dialysis.xlsx**

The excel workbook contains:

1. **LHIN of Hospital Summary:** Ambulatory oncology and dialysis visits, 2014/15-2016/17 and rankings, by LHIN of hospital
2. **LHIN of Patient Summary:** Ambulatory oncology and dialysis visits and crude visit rates, 2014/15-2016/17, and rankings, by LHIN of patient
3. **Sub-region of Patient:** Ambulatory oncology and dialysis visits and crude visit rates, 2016/17, and rankings, by sub-region area of residence
4. **Inflow Outflow:** Ambulatory oncology and dialysis visits for LHIN and sub-region residents by LHIN of hospital, 2016/17

**Prepared July 2018**

**Excel workbooks provided by:** Health Analytics Branch, Ministry of Health and Long Term Care  
**Analysis & interpretation prepared by:** *Eugene Wong and Xun Wang, Central LHIN*

## Ambulatory Oncology Utilization

- In 2016/17, there were over 1,059,000 ambulatory oncology visits to hospitals in Ontario, including approximately 1,500 out-of-province visits or 1,470 visits.
- From 2014/15 to 2016/17, oncology visits increased by 9%. The growth of oncology visits by hospital LHIN ranged from a 20% increase in **North Simcoe Muskoka** LHIN to a 1% decrease in **North East** LHIN. While the growth of visits by patient LHIN ranged from 23% increase in **Champlain** LHIN to a 3% decrease in **South East** LHIN.
- Ambulatory oncology visits per 1,000 population for Ontario residents were 75.7. The highest rate was in **North West** LHIN (100.3) and the lowest in **Central West** LHIN (55.3).
  - Residents of the following sub-regions had the 8 lowest and highest rates of oncology visits per 1,000 population:

Lowest Oncology Visit Rates	Highest Oncology Visit Rates
<ul style="list-style-type: none"> <li>- <b>Bramalea (CW)</b></li> <li>- <b>Brampton (CW)</b></li> <li>- <b>North West Mississauga (MH)</b></li> <li>- <b>Eastern York Region (C)</b></li> <li>- <b>Eastern Champlain (Ch)</b></li> <li>- <b>Western Champlain (Ch)</b></li> <li>- <b>James and Hudson Bay Coasts (NE)</b></li> <li>- <b>Northern (NW)</b></li> </ul>	<ul style="list-style-type: none"> <li>- <b>Elgin (SW)</b></li> <li>- <b>Oxford (SW)</b></li> <li>- <b>Cambridge-North Dumfries (Waterloo Wellington)</b></li> <li>- <b>Haldimand Norfolk (HNHB)</b></li> <li>- <b>Algoma (NE)</b></li> <li>- <b>District of Rainy River (NW)</b></li> <li>- <b>District of Thunder Bay (NW)</b></li> <li>- <b>City of Thunder Bay (NW)</b></li> </ul>

- The LHINs with the highest and lowest outflow of oncology visits (Proportion of ambulatory oncology visits by the LHIN's residents that occurred in hospitals outside the LHIN) across the LHINs were as follows:
  - 80% of oncology visits for **Central West** LHIN residents were to hospitals outside of **Central West** LHIN.
  - 0.5% of visits for **Champlain** LHIN residents were to LHIN hospitals outside of their home LHIN.
- The LHINs with the highest and lowest inflow of oncology visits (Proportion of ambulatory oncology visits from a LHIN's hospital(s) that were for residents who live in a different LHIN) across the LHINs, were as follows:
  - 71% of ambulatory oncology visits to **Toronto Central** LHIN hospitals were by non-**Toronto Central** LHIN residents.
  - 0.4% of ambulatory oncology visits to **Erie St. Clair** LHIN hospitals were by non-**Erie St. Clair** LHIN residents. **Champlain** LHIN hospitals, as a whole, also had a similarly low proportion of inflow visits.

Ambulatory Oncology	Ontario	Trend <sup>^</sup> (2014/15- 2016/17)	Range across LHINs	Range across sub-region
<b>LHIN of hospital</b>				
Ambulatory oncology visits	1,059,358	<i>Increased</i>	11,708-267,715	
% Inflow oncology visits			0.4% -71.0%	
<b>LHIN of patient</b>				
Ambulatory oncology visits	1,057,888	<i>Increased</i>	23,590 -124,390	172 – 44,810
% Outflow oncology visits			0.5% -80.1%	
Visits per 1,000 population	75.7		55.3 - 100.3	13.0 - 127.2
Visit rate/1,000 population age 0-17 years	5.0		1.2 - 7.1	0.0 - 10.9
Visit rate/1,000 population age 18-44 years	15.9		8.7 - 18.3	2.6 - 26.2
Visit rate/1,000 population age 45-64 years	106.7		91.7 - 141.4	16.4 - 196.0
Visit rate/1,000 population age 65-79 years	255.4		222.8 - 317.3	39.2 - 455.7
Visit rate/1,000 population age 80+ years	191.6		138.7 - 275.6	0 - 421.3

## Ambulatory Dialysis Utilization

- In 2016/17, there were nearly 1,270,000 ambulatory dialysis visits to Ontario hospitals, including 5,120 out of region patients' visits.
- From 2014/15 to 2016/17, ambulatory dialysis visits increased by 3%. The growth of dialysis visits by hospital LHIN ranged from a 14% increase in **North West** LHIN to a 4% decrease in **Champlain** LHIN. While the growth of visits by patient LHIN ranged from 13% increase in **North West** LHIN to a 3% decrease in **Champlain** LHIN.
- The rate of ambulatory dialysis visits per 1,000 population for Ontario residents was 90.4. The highest rate was in **North West** LHIN (159.3) and the lowest in **Waterloo Wellington** LHIN (69.6).
  - Residents of the following sub-regions had the 8 lowest and highest rates of dialysis visits per 1,000 population:

Lowest Dialysis Visit Rates	Highest Dialysis Visit Rates
<ul style="list-style-type: none"> <li>- Huron Perth (SW)</li> <li>- Wellington (WW)</li> <li>- Niagara North West (HNHB)</li> <li>- Dufferin (CW)</li> <li>- Bolton-Caledon (CW)</li> <li>- Halton Hills (MH)</li> <li>- Western Ottawa (Ch)</li> <li>- District of Thunder Bay (NW)</li> </ul>	<ul style="list-style-type: none"> <li>- Niagara (HNHB)</li> <li>- North York West (C)</li> <li>- Scarborough South (CE)</li> <li>- Kingston (SE)</li> <li>- James and Hudson Bay Coasts (NE)</li> <li>- District of Rainy River (NW)</li> <li>- City of Thunder Bay (NW)</li> <li>- Northern (NW)</li> </ul>

- The LHINs with the highest and lowest outflow of dialysis visits (Proportion of ambulatory dialysis visits by the LHIN's residents that occurred in hospitals outside the LHIN) compared to other LHINs, were as follows:
    - 38% of visits for **Central** LHIN residents were from hospitals outside of **Central** LHIN.
    - 0.8% of visits by **North West** LHIN residents were from hospitals outside of **North West** LHIN.
  - The LHINs with the highest and lowest inflow of dialysis visits (Proportion of ambulatory dialysis visits from a LHIN's hospital(s) that were for residents who live in a different LHIN) across the LHINs were as follows:
    - 49% of ambulatory dialysis visits to **Toronto Central** LHIN hospitals were by non-**Toronto Central** LHIN residents.
    - 0.2% of ambulatory dialysis visits to **North West** LHIN hospitals were by non-**North West** LHIN residents.
- Erie St. Clair** hospitals, as a whole, also experience a similarly low proportion of inflow visits.

Ambulatory Dialysis	Ontario	Trend <sup>^</sup> (2014/15- 2016/17)	Range across LHINs	Range across sub-region
<b>LHIN of hospital</b>				
Ambulatory dialysis visits	1,269,794	<i>Increased</i>	37,221-189,359	
% Inflow dialysis visits			0.2% - 48.9%	
<b>LHIN of patient</b>				
Ambulatory dialysis visits	1,264,676	<i>Increased</i>	37,454 - 164,735	477 - 63,206
% Outflow dialysis visits			0.8% -37.5%	-
Visits per 1,000 population	90.4		69.6 - 159.3	32.1 - 238.4
Visit rate/1,000 population age 0-17 years	1.2		0.0 - 2.3	0.0 - 8.5
Visit rate/1,000 population age 18-44 years	21.8		12.8 - 90.0	0.7 - 201.0
Visit rate/1,000 population age 45-64 years	105.3		66.5 - 223.1	26.3 - 554.3
Visit rate/1,000 population age 65-79 years	285.3		208.0 -424.5	65.0 - 1187.9
Visit rate/1,000 population age 80+ years	426.7		291.4 - 634.8	0.0 - 1140.1

<sup>^</sup> Trend: "Increase/decrease" when there was a change more than 1%, otherwise, "stable"

## Home Care

### Home Care Referrals

**Notes:**

This chapter and the accompanying workbook contain analysis based on home care utilization by LHIN and sub-region (where available). Analysis is based on data from Client Health and Related Information System (CHRIS), Ministry of Finance Population Estimates (2011-2016) and Projections (2017) for LHINs, and MOHLTC Health Analytics Branch Population estimates for LHIN sub-regions 2014, 2015, 2016.

Detailed analysis is provided in the accompanying Excel workbook:

**2018 07 12 Active Home Care Patient Referrals\_Updated Rates.xlsx**

The excel workbook contains:

1. Active home care patient referrals, by LHIN and sub-region, 2010/11-2017/18
2. Crude active home care patient referrals rates by LHIN 2014/15-2017/18; crude active home care patient referrals rates by sub-region, 2014/15-2017/18
3. Notes and methods for each measure

**Prepared July 2018**

**Excel workbooks provided by:** Health Shared Services Ontario

**Analysis & interpretation prepared by:** *Marilee Suter, Karen Leung, Marci Pawlowski, Central East LHIN*

Active Home Care Patient Referrals

In Ontario, Local Health Integration Networks (LHINs) are responsible for the provision of a range of home care services, including placements to long-term care homes, case management, and the provision of home care services. Home care services include in-home professional services (e.g. nursing, physiotherapy), in-home personal support and homemaking, in-home respite care services and school health services for children. It is important to note that not all LHINs offer/capture the same services in the same manner; therefore some differences between LHINs may be due to data collection or the types of services that they provide.

Active home care patient referrals are defined as referrals with Admission Date less than or equal to the last day of the fiscal year and Discharge Date greater than or equal to the first day of the fiscal year or Discharge Date missing. This is not a count of unique patients, but a count of each referral that was active in the fiscal year.

- In 2017/18, there were 685,271 active home care patient referrals in Ontario. The number of patient referrals ranged from 15,435 in North West LHIN to 85,763 in Hamilton Niagara Haldimand Brant LHIN.
  - Out of the 14 LHINs, North West (15,435) and North Simcoe Muskoka (24,689) had the lowest and second lowest number of active patient referrals in the province while Hamilton Niagara Haldimand Brant (85,763) and Central East (78,761) had the highest and 2<sup>nd</sup> highest number of referrals.
  - Residents of the following sub-regions had the lowest and highest number of active home care referrals:

Lowest Active Home Care Referrals	Highest Active Home Care Referrals
<ul style="list-style-type: none"><li>- James and Hudson Bay Coasts (NE)</li><li>- Northern (NW)</li><li>- District of Thunder Bay (NW)</li><li>- District of Rainy River (NW)</li><li>- Bolton-Caledon (CW)</li><li>- District of Kenora (NW)</li><li>- Rural Hastings (SE)</li><li>- Halton Hills (MH)</li></ul>	<ul style="list-style-type: none"><li>- Durham North East (CE)</li><li>- Scarborough South (CE)</li><li>- Central Ottawa (Ch)</li><li>- Western York Region (C)</li><li>- Kitchener-Waterloo-Wilmot-Wellesley-Woolwich (WW)</li><li>- London Middlesex (SW)</li><li>- Niagara (HNHB)</li><li>- Hamilton (HNHB)</li></ul>

## Active Patient Referrals by LHIN, 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across LHINs*
Erie St. Clair	37,544	38,459	39,221	
South West	55,507	57,841	59,016	
Waterloo Wellington	36,958	37,611	40,556	
Hamilton Niagara Haldimand Brant	81,087	83,716	85,763	Highest
Central West	32,968	34,421	35,084	
Mississauga Halton	43,548	44,317	47,665	
Toronto Central	49,554	50,716	53,573	
Central	70,639	73,070	75,381	
Central East	73,570	75,163	78,761	2 <sup>nd</sup> highest
South East	30,321	32,292	34,122	
Champlain	56,506	58,413	58,409	
North Simcoe Muskoka	23,000	23,844	24,689	2 <sup>nd</sup> lowest
North East	35,743	37,242	37,596	
North West	14,618	15,122	15,435	Lowest
Ontario	641,563	662,227	685,271	

\*Rank based on 2017/18 active patient referrals

### Home Care Referral Rate

- In 2017/18, there were 48.2 active home care patient referrals per 1,000 population for Ontario overall. The rate of utilization ranged from 36.6 in **Central West** LHIN to 67.9 in **South East** LHIN.
- Out of the 14 LHINs, **Central West** (36.6) and **Mississauga Halton** (36.9) had the **lowest** and 2<sup>nd</sup> lowest rates of utilization while **South East** (67.9) and **North East** (66.7) had the **highest** and 2<sup>nd</sup> highest rate of active referrals.
  - Out of the 76 sub-regions, the following areas had the lowest and highest utilization rates:

Lowest Utilization Rates	Highest Utilization Rates
<ul style="list-style-type: none"> <li>James and Hudson Bay Coasts (<b>NE</b>)</li> <li>North West Mississauga (<b>MH</b>)</li> <li>Northern (<b>NW</b>)</li> <li>Eastern York Region (<b>C</b>)</li> <li>Eastern Ottawa (<b>Ch</b>)</li> <li>Bolton-Caledon (<b>CW</b>)</li> <li>Bramalea (<b>CW</b>)</li> <li>Brampton (<b>CW</b>)</li> </ul>	<ul style="list-style-type: none"> <li>Algoma (<b>NE</b>)</li> <li>Lambton (<b>ESC</b>)</li> <li>Rural Kent (Erie. St. Clair)</li> <li>Rural Hastings (<b>SE</b>)</li> <li>Haliburton County and City Of Kawartha Lakes (<b>CE</b>)</li> <li>City of Thunder Bay (<b>NW</b>)</li> <li>Chatham City Centre (<b>ESC</b>)</li> <li>Quinte (<b>SE</b>)</li> </ul>

### Active Patient Referrals Crude Rate (per 1,000 population) by LHIN, 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across LHINs*
Erie St. Clair	58.7	59.8	60.5	
South West	57.1	58.9	59.5	
Waterloo Wellington	47.8	48	51.0	
Hamilton Niagara Haldimand Brant	56.1	57.3	57.9	
Central West	35.9	36.8	36.6	<b>Lowest</b>
Mississauga Halton	35.3	35.1	36.9	2 <sup>nd</sup> lowest
Toronto Central	39.4	39.5	40.4	
Central	37.9	38.6	38.9	
Central East	45.9	46.4	47.9	
South East	61.2	64.8	67.9	<b>Highest</b>
Champlain	42.9	43.8	42.9	
North Simcoe Muskoka	48	49	50.0	
North East	63.4	66.2	66.7	2 <sup>nd</sup> highest
North West	62.1	64.3	65.5	
Ontario	46.5	47.4	48.2	

### Home Care Services

#### Notes:

This section and the accompanying workbook contain analysis based on the home care utilization data by LHIN and sub-region.

The data includes all paid visits/hours per fiscal year.

The patient must have a Service Receipt Codes between 91 to 95 as of the visit date.

The sub-region is extracted for each patient using the home address as of the visit date for case management and the service assignment treatment location for all other services.

See the Excel file for details on rate calculation.

Detailed analysis is provided in the accompanying Excel workbook:

2018 07 12 Home Care Services\_With Rates.xlsx

#### The excel workbook contains:

1. Service information (visits/hours) 2010/11-2017/18 by LHIN and sub-region; service utilization rates per 1000 population by LHIN 2010/11-2017/18; service utilization rates per 1000 population by LHIN sub-region 2014/15-2017/18. (Note: Denominator for sub-region rates for 2017/18 is 2016 population estimates. Estimates for 2017 were not available at the sub-region level at time of calculation.

**Prepared July 2018**

**Excel workbooks provided by:** Health Shared Services Ontario

**Analysis & interpretation prepared by:**

*Joan Tonon, Data and Performance Lead, North East LHIN*

*Jean Willick, Director of Business Intelligence and Decision Support, North East LHIN*



### LHIN Services by Type

All services are not offered by all LHINs. For example, psychology visits occurred in only one LHIN, respiratory visits in four LHINs, and ‘other’ visits in 11 of the 14 LHINs in 2017/18. Since these services are not consistently available in all LHINs, provincial rates for these services will be misleading. Therefore values for psychology, respiratory and ‘other’ are not shown; however, these services are included within the ‘All Visits’ totals.

Rates per population are calculated using the Ministry of Finance estimates as the denominator. Estimates are not yet available for 2017 at the sub-region level. In order to provide the most current information available a decision was made to use the 2016 estimates as the denominator for the 2017/18 sub-region rates.

Several LHINs had special funding for respite services prior to 2016/17. These are the only LHINs that have hours for respite for the years 2010/11 to 2015/16. During fiscal 2016/17, additional base funding was provided to all LHINs for respite and the service type was activated for all LHINs to record the new respite service. 13 of the 14 LHINs are using this service type to some degree but may not be consistently implemented across the LHINs and sub-regions. Respite hours may also be embedded in personal support work and homemaking. Separation of these two services in the data may not present an accurate picture.

Home care services are reported as visits or hours, depending on how the services are tabulated. For example, nursing may be visit nursing (visits), or shift nursing (hours). Personal support and homemaking is by the hour.

- In 2017/18, there were just over 11.5 million home care service visits, which represented 810.2 visits per 1,000 population. The number of visits ranged from 284,723 in the **North West** LHIN to 1,457,423 in the **Hamilton Niagara Haldimand Brant** LHIN, while the visit rates ranged from 540.6 in the **Central West** LHIN to 1,358.7 per 1,000 population in the **North East** LHIN.
  - Out of the 76 sub-regions, the following areas had the lowest and highest total visit rates:

Lowest Visit Rates	Highest Visit Rates
<ul style="list-style-type: none"><li>- James and Hudson Bay Coasts(<b>NE</b>)</li><li>- Northern(<b>NW</b>)</li><li>- Bolton-Caledon(<b>CW</b>)</li><li>- Bramalea(<b>CW</b>)</li><li>- North West Mississauga(<b>MH</b>)</li><li>- Eastern York Region(<b>C</b>)</li><li>- Scarborough North(<b>CE</b>)</li><li>- Halton Hills(<b>MH</b>)</li></ul>	<ul style="list-style-type: none"><li>- City of Thunder Bay(<b>NW</b>)</li><li>- Algoma(<b>NE</b>)</li><li>- Chatham City Centre(<b>ESC</b>)</li><li>- Nipissing-Temiskaming(<b>NE</b>)</li><li>- Rural Hastings(<b>SE</b>)</li><li>- Sudbury-Manitoulin-Parry Sound(<b>NE</b>)</li><li>- Quinte(<b>SE</b>)</li><li>- Oxford(<b>SW</b>)</li></ul>

- Nursing and case management accounted for the largest number of visits for those services that are reported as visits. However LHINs do not report case management services in the same manner; therefore differences among LHINs may be due to differences in data collection.
  - In 2017/18, the nursing visit rate for Ontario was 529.8 visits per 1,000 population. The nursing visit rate ranged from 348.7 in the **Mississauga Halton** LHIN to 817.8 in the **North West** LHIN.

- Out of the 76 sub-regions, the following areas had the lowest and highest nursing visit rates:

Lowest Nursing Visit Rates	Highest Nursing Visit Rates
<ul style="list-style-type: none"> <li>- James and Hudson Bay Coasts(<b>NE</b>)</li> <li>- Northern(<b>NW</b>)</li> <li>- North West Mississauga(<b>MH</b>)</li> <li>- Bolton-Caledon(<b>CW</b>)</li> <li>- Bramalea(<b>CW</b>)</li> <li>- Scarborough North(<b>CE</b>)</li> <li>- Eastern York Region(<b>C</b>)</li> <li>- Halton Hills(<b>MH</b>)</li> </ul>	<ul style="list-style-type: none"> <li>- City of Thunder Bay(<b>NW</b>)</li> <li>- Chatham City Centre(<b>ESC</b>)</li> <li>- Oxford(<b>SW</b>)</li> <li>- Rural Hastings(<b>SE</b>)</li> <li>- Algoma(<b>NE</b>)</li> <li>- Muskoka(<b>NSM</b>)</li> <li>- Grey Bruce(<b>SW</b>)</li> <li>- Windsor(<b>ESC</b>)</li> </ul>

- For services that report in hours, in 2017/18 there were over 34 million home care service hours in Ontario, or 2,417.3 service hours per 1,000 population. The service hour rates ranged from 1,688.4 in the **Central West** LHIN to 2,851.8 in the **Hamilton Niagara Haldimand Brant** LHIN in 2017/18. Personal support work and homemaking accounted for 91% of all home care service hours in 2017/18. The service hour rates per 1,000 population for Personal support varied from 1,485.8 in **Central West** LHIN to 2,635.3 in **South East** LHIN.

- Out of the 76 sub-regions reporting personal support\*, the following areas had the lowest and highest rates of personal support hours:

Lowest Visit Rates	Highest Visit Rates
<ul style="list-style-type: none"> <li>- Northern (<b>NW</b>)</li> <li>- Cochrane (<b>NE</b>)</li> <li>- Halton Hills (<b>MH</b>)</li> <li>- Bolton-Caledon (<b>CW</b>)</li> <li>- Dufferin (<b>CW</b>)</li> <li>- Brampton (<b>CW</b>)</li> <li>- Bramalea (<b>CW</b>)</li> <li>- Milton (<b>MH</b>)</li> <li>- *James and Hudson Bay Coasts (<b>NE</b>) did not report personal support hours</li> </ul>	<ul style="list-style-type: none"> <li>- City of Thunder Bay (<b>NW</b>)</li> <li>- Mid-West Toronto (<b>TC</b>)</li> <li>- North York West (<b>C</b>)</li> <li>- Lanark, Leeds &amp; Grenville (<b>SE</b>)</li> <li>- North York Central (<b>C</b>)</li> <li>- Hamilton (<b>HNHB</b>)</li> <li>- South Georgian Bay (<b>NSM</b>)</li> <li>- Eastern Champlain (<b>Ch</b>)</li> </ul>

- Between 2014/15 and 2017/18 there was a 10.8% increase in home care service visits and a 13.4% increase in home care service hours for Ontario. Of the services with significant volume, Case Management had the largest increase in visits at 21.4% and Physiotherapy showed the largest decline of 14.1%.

## LHIN Services by Type

- As noted, services may not be offered by all LHINs. For example, psychology visits occurred in only two LHINs, respiratory visits in 8 LHINs, and 'other' visits in 11 of the 14 LHINs in 2017/18. Since these services are not consistently available in all LHINs, provincial rates for these services will be misleading. Therefore values for psychology, respiratory and 'other' are not shown; however these services are included within the 'All Visits' totals.

Summary of LHIN Services† by Type in Ontario, 2017/18—Table

Services by Type	Visits/Hours‡		Crude Rate/1,000 population			
	#	% change 2014/15- 2017/18	Rate	% change 2014/15- 2017/18	Range across LHINs	Range across sub- regions
<b>Service Visits</b>						
<b>All Visits†</b>	<b>11,528,751</b>	<b>10.8%</b>	<b>810</b>	<b>6.6%</b>	<b>540.6-1,358.7</b>	<b>173.4-1,657.8</b>
Nursing Visit	7,539,458	11.9%	530	7.7%	348.7-817.8	64.7-1,160.1
Physiotherapy	738,685	-14.1%	52	-17.5%	26.4-93.8	3.8-113.8
Occupational Therapy	615,215	6.9%	43	2.4%	25.7-93.5	3.0-117.4
Social Work	56,973	4.5%	4	0.0%	0.8-15.2	0.2-21.7
Nutrition and Dietetic	47,949	0.3%	3	0.0%	1.3-8.3	0.4-12.6
Speech Language Pathology	273,735	-3.3%	19	-9.5%	11.6-52.8	8.0-74.0
Case Management	2,211,107	21.4%	155	16.5%	72.3-470.6	58.2-517.8
<b>Service Hours</b>						
<b>All Hours</b>	<b>34,396,921</b>	<b>13.4%</b>	<b>2,417</b>	<b>9.1%</b>	<b>1,688.4-2,851.8</b>	<b>230.2-3,441.3</b>
Nursing Shift	2,366,020	15.9%	166	11.4%	79.1-236.9	2.6-321.5
Personal Support Work and Homemaking	31,319,569	10.8%	2,201	6.6%	1,485.8-2,635.3	230.2-3,167.0
Respite	711,332	n/a	50	n/a	0.0-285.2	0.3-358.8

‡Not all LHINs offer the same services or report case management service in the same manner.

†Includes visits for respiratory, psychology, and 'other' service types (not shown), which are not consistently reported/available in all LHINs.

n/a – not applicable due to significant changes in funding and recording

## Home Care Waitlists

Note: Data on Ontarians waiting for home care has not been included in the 2018 Environmental Scan. Although there are fields to capture this information in the Health Shared Services Ontario database, operational waitlisting practices vary substantially from LHIN to LHIN, rendering comparisons of population need across the province valueless. Additionally, changes in operations within each LHIN mean that waitlist information in the system appears to fluctuate wildly from one period to another. These fluctuations reflect the changes in practice, not changes in the needs of each LHIN's population.

## Palliative Care

The following chapter (section) and attached worksheet presents a set of system level and supporting measures to measure quality and performance in Ontario's palliative care system. This section contains system-level measures related to hospital system measures, as selected by the Ontario Palliative Care Network.

Detailed analysis is provided in the accompanying Excel workbook:  
**IHSP Palliative Care – All Measures.xlsx**

The excel workbook contains:

1. Palliative home visits in the last 90 days of life
2. Physician home visits in the last 90 days of life
3. Palliative care patients discharged "home with support"
4. Average days spent at home in the last six months of life
5. Percent of patients who had one or more unplanned ED visits in the last 30 days of life
6. Percent of patients who had two or more unplanned ED visits in the last 30 days of life
7. Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days
8. Percent of people who die in hospital (all hospital settings and acute only)
9. Percent of people who die in acute hospital
10. Percent of patients who had two or more acute inpatient admissions in the last 30 days of life

**Prepared June 2018**

**Excel workbooks provided by:** Health Analytics Branch, Ministry of Health and Long Term Care  
**Analysis & interpretation prepared by:** *Oz Eren, Alex Vucenovic, Erie St. Clair LHIN*  
*Brianne Wood, North West LHIN*

Palliative care refers to care for patients and their families who are facing a serious, life-limiting illness. Palliative care aims to relieve suffering and improve quality of life for patients and their families at all stages of the illness. Palliative care focuses on treating the impact that an illness has on patients, and is often provided in addition to other care that focuses on treating the illness itself<sup>1</sup>.

---

<sup>1</sup> [http://www.health.gov.on.ca/en/public/programs/palliative/palliative\\_questionsandanswers.aspx](http://www.health.gov.on.ca/en/public/programs/palliative/palliative_questionsandanswers.aspx)

## Utilization of Palliative Care Services in the Last 90 Days of Life

Note: a higher percentage might suggest care that is more closely aligned with what patients desire, with the exception of % of patients who received palliative care who died in hospital (lower is better).

### Patient Utilization of Palliative Care Services in the Last 90 Days of Life

	Ontario FY 2016- 2017	Range across the LHINs FY 2016-2017	Range across the sub-regions FY 2016-2017
<b>Palliative Care</b>			
% of patients who received palliative home visits(home servicers or physician) in the last 90 days of life	36%	16% to 44%	6% to 55%
% of patients who received palliative home servicers in the last 90 days of life	25%	12% to 34%	4% to 25%
% of patients who had physician home visits in the last 90 days of life	28%	9% to 36%	6% to 46%
% of patients who receive palliative home services who died in hospital	25%	18% to 37%	6.5% to 54%
% of palliative care patients discharged home from hospital with the discharge status "Home with Support"	85%	78%-90%	22% to 95%
Mean days spent at home/residence in last 6 months of life	160 days	155 to 165 days	133 to 167 days

- In the 2016/2017 fiscal year, 36% of Ontario patients received any home visits in the last 90 days of life. This varied substantially across LHINs, with the **North West** LHIN as a notable outlier reporting on 16% of patients receiving home visits. Comparatively, the **North Simcoe Muskoka** and **Waterloo Wellington** LHINs reported 44% patients received home visits in the last 90 days. The remaining LHINs reported percentages between 31% (**NE**) and 40% (**Ch**).
  - Seven sub-regions reported the lowest percentages of patients receiving home care in the last 90 days of life were part of the **North East** or **North West** LHINs in 2016/2017. Four sub-regions reported percentages greater than 45%, two of which were in the **North Simcoe Muskoka** LHIN (**South Georgian Bay** and **Couchiching**, 55% and 47% respectively). **Guelph-Puslinch** had the second highest percentage of patients at 50%, and **Niagara North West** reported the third highest percentage at 47.4%.
- In 2016/2017, 25% of Ontario patients received home service visits in the last 90 days of life. The **North West** LHIN reported significantly fewer patients receiving home servicer visits in the last 90 days of life at 12%. **Waterloo Wellington** and **North Simcoe Muskoka** LHINs reported patient percentages greater than 30%: 34% and 32%, respectively.
  - **James and Hudson Bay Coasts** sub-region of the **North East** LHIN reported 0% patients receiving home service visits, and all of **North West** LHIN's sub-regions reported less than 15% of patients receiving home service visits. **South Georgian Bay** sub-region of **North Simcoe Muskoka** reported the highest percentage of patients receiving home servicer visits at 39%.
- In 2016/2017, 28% of Ontario patients received a physician home visits in their last 90 days of life. The **North West** LHIN had the lowest percentage among the 14 LHINs reporting only 9.2% of patients received a physician visit. The **North East** LHIN reported the second lowest percentage of patients receiving a physician at 19%. **Waterloo Wellington** and **North Simcoe Muskoka** LHINs had the highest percentage of patients receiving a physician home visit in their last 90 days at 36% and 35% respectively.

- Of the 10 sub-regions that reported the lowest percentages of patients receiving physician visits in the last 90 days of life, eight were in the **North East** (**James and Hudson Bay Coasts** (5.6%), **Cochrane** (14%), **Nipissing-Temiskaming** (17%)) and **North West** LHINs (**City of Thunder Bay** (7.6%), **District of Kenora** (8.8%), **District of Rainy River** (10%), **District of Thunder Bay** (14%), **Northern** (19%)). On the higher end, **South Georgian Bay**, **Couchiching**, and **Barry and Area** from **North Simcoe Muskoka** reported percentages of 46%, 37%, and 36% respectively. **Guelph-Puslinch** had the second highest percentage at 43%, and **Niagara North West** reported 41%.
- In Ontario in 2016/2017, 25% of patients who received palliative home services died in hospital. Three LHINs reported percentages greater than 30%: **South West** (31%), **Central East** (34%), and **North East** (37%). Four other LHINs reported percentages at 20% or less: **South East** (18%), **North Simcoe Muskoka** (19%), **Erie St. Clair** (20%), and **Waterloo Wellington** (20%).
  - **Cochrane** sub-region of the **North East** LHIN reported that 54% of patients who received palliative home services died in hospital. Four sub-regions from **Central East** also reported comparatively high percentages of patients who died in hospital: **Haliburton County and City Of Kawartha Lakes** (50%), **Peterborough City and County** (47%), **Northumberland County** (40%), and **Scarborough North** (37%). Also high on the list were two **North West** sub-regions (**District of Rainy River** at 40%, **District of Thunder Bay** at 44%) and a **North East** sub-region **Nipissing-Temiskaming** (43%). **James and Hudson Bay Coasts** did not have detailed robust estimates.
- In Ontario in 2016/2017, 85% of palliative care patients were discharged home from hospital with the discharge status "Home with Support". There was low variation across LHINs, ranging from 78% in the **North West** LHIN to 90% in **North Simcoe Muskoka**.
  - However, across sub-regions, there was dramatic variation with three sub-regions reporting percentages less than 30%: **Northern** sub-region (22%), **James and Hudson Bay Coasts** (25%), and **District of Rainy River** (33%). On the higher end, there were 22 sub-regions with percentages 90% and higher, including the highest two: **Rural Frontenac, Lennox, and Addington** (95%) and **Bolton-Caledon** (95%).
- In the last 6 months of life, the mean patient in Ontario spent 160 days at home in 2016/2016. There was variation across LHINs is quite small, with 155 days as the lowest mean number of days spent at home in **Toronto Central** LHIN, and 165 in **Waterloo Wellington** and **North Simcoe Muskoka** LHINs.
  - Four sub-regions in the **North East** and **North West** LHINs were notably below the provincial value for days spent at home in the last 6 months of life: **James and Hudson Bay Coasts** (133), **Northern** (145), **District of Thunder Bay** (149), and **Cochrane** (153). On the high end, **Muskoka** sub-region and **Chatham City Centre** reported 167 days.

## Sub-Region Rankings (by measure), FY 2016/2017

**Percent of patients who received palliative home visits(home servicers or physician) in the last 90 days of life, FY 2016/2017**

Highest Eight	Lowest Eight
South Georgian Bay (55%)	Milton (25%)
Guelph-Puslinch (50%)	Cochrane (25%)
Niagara North West (47%)	District of Thunder Bay (21%)
Couchiching (47%)	Northern (19%)
Cambridge-North Dumfries (44%)	City of Thunder Bay (17%)
Eastern Ottawa (44%)	District of Rainy River (16%)
Bolton-Caledon (43%)	District of Kenora (11%)
Kitchener-Waterloo-Wilmot-Wellesley-Woolwich (43%)	James and Hudson Bay Coasts (5.6%)

**Percent of patients who received palliative home servicers in the last 90 days of life, FY 2016/2017**

Highest Eight	Lowest Eight
South Georgian Bay (39%)	Cochrane (17%)
Bolton-Caledon (37%)	Lanark, Leeds & Grenville (17%)
Kitchener-Waterloo-Wellesley-Wilmot-Woolwich (35%)	City of Thunder Bay (14%)
Guelph-Puslinch (35%)	District of Thunder Bay (13%)
Eastern Ottawa (33%)	District of Rainy River (11%)
Muskoka (33%)	District of Kenora (4.4%)
Cambridge-North Dumfries (32%)	Northern (2.8%)
Couchiching (32%)	James and Hudson Bay Coasts (0%)

**Percentage of patients who had physician home visits in the last 90 days of life, FY 2016/2017**

Highest Eight	Lowest Eight
South Georgian Bay (46%)	Nipissing-Temiskaming (17%)
Guelph-Puslinch (43%)	Milton (17%)
Niagara North West (41%)	District of Thunder Bay (14%)
South Simcoe (39%)	Cochrane (14%)
North Toronto (39%)	District of Rainy River (10%)
Western York Region (37%)	District of Kenora (8.8%)
Couchiching (36%)	City of Thunder Bay (7.6%)
Bolton-Caledon (37%)	James and Hudson Bay Coasts (5.6%)

### Sub-Region Rankings (by measure), FY 2016/2017

Percent of patients receiving palliative home services who died in hospital, FY 2016/2017	
Highest Eight	Lowest Eight
Cochrane (54%)	Northern York Region (15%)
Haliburton County and City Of Kawartha Lakes (50%)	Oakville (13%)
Peterborough City and County (47%)	Chatham City Centre (13%)
District of Thunder Bay (44%)	South Georgian Bay (12%)
Nipissing-Temiskaming (43%)	Quinte (12%)
District of Rainy River (40%)	Brant (10%)
Northumberland County (40%)	Halton Hills (10%)
Eastern York Region (39%)	South Simcoe (6.5%)
Percent of palliative care patients discharged home from hospital with the discharge status "Home with Support", FY 2016/2017	
Highest Eight	Lowest Eight
Couchiching (96%)	Elgin (76%)
Dufferin (96%)	District of Thunder Bay (69%)
Guelph-Puslinch (94%)	Cochrane (66%)
South West Mississauga (94%)	District of Kenora (64%)
North Simcoe (94%)	Lambton (63%)
Barrie and Area (93%)	District of Rainy River (56%)
Oxford (93%)	Northern (33%)
Wellington (93%)	James and Hudson Bay Coasts (11%)
Mean days spent at home/residence in last 6 months of life, FY 2016/2017	
Highest Eight	Lowest Eight
Muskoka (167 days)	Mid-West Toronto (155 days)
Chatham City Centre (167 days)	Oakville (155 days)
South Georgian Bay (166 days)	North Toronto (154 days)
South Simcoe (166 days)	West Toronto (154 days)
Cambridge-North Dumfries (166 days)	Cochrane (153 days)
Quinte (166 days)	District of Thunder Bay (149 days)
Couchiching (166 days)	Northern (145 days)
Northumberland County (165 days)	James and Hudson Bay Coasts (133 days)



## Palliative Hospital System Measures, Ontario (FY 2016/17)

	Ontario	Range Across the LHINs	Range Across the Sub-Regions
Percent of patients who had one or more unplanned ED visits in the last 30 days of life	54%	47% - 58%	42% - 76%
Percent of patients who had two or more unplanned ED visits in the last 30 days of life	15%	12% - 19%	10% - 43%
Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days	21%	16% - 29%	9% - 47%
Percent of people who die in hospital (all hospital settings and acute only)	52%	42% - 58%	33% - 75%
Percent of people who die in acute hospital	44%	36% - 50%	30% - 69%
Percent of patients who had two or more acute inpatient admissions in the last 30 days of life	5%	5% - 7%	3% - 16%

### LHIN Comparison

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, the following LHINs were determined to be significantly lower than the province: **Waterloo Wellington**, **Hamilton Niagara Haldimand Brant**, and **North West** (lowest). The following LHINs were determined to be significantly higher than the province: **Central West**, **Central**, **Central East**, **North East** (highest).
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, the following LHINs were determined to be significantly lower than the province: **Waterloo Wellington** (lowest), **Mississauga Halton**, **Toronto Central**, and **Hamilton Niagara Haldimand Brant**. The following LHINs were determined to be significantly higher than the province: **Central East**, **Champlain**, **North East**, and **South East** (highest) LHIN.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, **Waterloo Wellington** was the only LHIN determined to be significantly different (lower) than the province. **Hamilton Niagara Haldimand Brant** and **North East** reported the lowest and highest percentages, respectively.
- For percent of people who die in hospital (all hospital settings and acute only), the following LHINs were determined to be significantly lower than the province: **North Simcoe Muskoka** (lowest), **Waterloo Wellington**, **Champlain**, **Central West**. The following LHINs were determined to be significantly higher than the provincial value: **Mississauga Halton**, **Toronto Central**, **Central** (highest), **Central East**, and **North West**.
- For percent of people who die in acute hospital, the following LHINs were determined to be significantly different from the province: **Waterloo Wellington** (lowest), **Hamilton Niagara Haldimand Brant** (lower than province), **Central West** (highest), **Mississauga Halton** (higher than province), **Central** (higher than province), **Central East** (higher than province), and **North East** (higher than province).
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, the following LHINs were determined to be significantly different from the province: **Hamilton Niagara Haldimand Brant** (lowest), **Champlain** (lower than the province), and **Central East** and **Central West** (highest) were significantly higher than the provincial percentage.

Note: Statistical difference evaluated using Mann-Whitney U Test for the eight periods fiscal 2015-16 Q1 through fiscal 2016-17 Q4. Lowest and Highest LHINs a noted based on entire 2016-17 fiscal year and correspond to Table 1: Palliative Hospital System Measures, Ontario.

### Change Over Time

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of -0.67% was observed across the province. Across LHINs, **Mississauga Halton** (0.57%) and **North West** (-3.09%) were observed highest and lowest, respectively.
  - Across sub-regions, **James and Hudson Bay Coasts** (9.63%) and **City of Thunder Bay** (-4.62%) were observed highest and lowest, respectively.
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of 0.26% was observed across the province. Across LHINs, **North East** (1.99%) and **North Simcoe Muskoka** (-3.20%) were observed highest and lowest, respectively.
  - Across sub-regions, **James and Hudson Bay Coasts** (31.90%) and **Northern** (-12.95%) were observed highest and lowest, respectively.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, a mean annual growth rate of 0.14% was observed across the province. Across LHINs, **Champlain** (5.34%) and **North West** (-3.66%) were observed highest and lowest, respectively.
  - Across sub-regions, **Couchiching** (14.65%) and **Essex South Shore** (-27.16%) were observed highest and lowest, respectively.
- For percent of people who die in hospital (all hospital settings and acute only), a mean annual growth rate of -1.67% was observed across the province. Across LHINs, **North East** (-0.43%) and **North Simcoe Muskoka** (-3.75%) were observed highest and lowest, respectively.
  - Across sub-regions, **James and Hudson Bay Coasts** (5.07%) and **South Georgian Bay** (-10.87%) were observed highest and lowest, respectively.
- For percent of people who die in acute hospital, a mean annual growth rate of -1.91% was observed across the province. Across LHINs, **Mississauga Halton** (0.19%) and **Champlain** (-3.88%) were observed highest and lowest, respectively.
  - Across sub-regions, **James and Hudson Bay Coasts** (2.81%) and **South Georgian Bay** (-10.92%) were observed highest and lowest, respectively.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, a mean annual growth rate of -1.38% was observed across the province. Across LHINs, **Waterloo Wellington** (2.35%) and **Champlain** (-8.05%) were observed highest and lowest, respectively. Across sub-regions, **James and Hudson Bay Coasts** (35.84%) and **Essex South Shore** (-15.14%) were observed highest and lowest, respectively.

Note: Mean annual growth was computed for fiscal years 2013-14 through 2016-17.

## Sub-Region Rankings

### Percent of residents who had one or more unplanned ED visits in the last 30 days of life (\*lower is better)

Highest Eight	Lowest Eight
James and Hudson Bay Coasts (75.7%)	Kingston (49.5%)
Cochrane (61.0%)	Kitchener-Waterloo-Wellesley-Wilmot-Woolwich (49.4%)
Scarborough North (60.7%)	Chatham City Centre (49.2%)
North York West (60.7%)	Cambridge-North Dumfries (48.6%)
Halton Hills (60.1%)	Brant (48.4%)
North Etobicoke Malton West Woodbridge (60.0%)	Lambton (47.5%)
Scarborough South (59.5%)	Northern (46.5%)
Eastern York Region (59.2%)	City of Thunder Bay (42.3%)

### Percent of residents who had two or more unplanned ED visits in the last 30 days of life (\*lower is better)

Highest Eight	Lowest Eight
James and Hudson Bay Coasts (43.2%)	Kitchener-Waterloo-Wellesley-Wilmot-Woolwich (11.6%)
District of Thunder Bay (26.5%)	Guelph-Puslinch (11.6%)
Quinte (22.1%)	City of Thunder Bay (11.6%)
Western Champlain (21.7%)	South West Mississauga (11.4%)
District of Rainy River (21.3%)	South Etobicoke (10.9%)
Rural Frontenac, Lennox & Addington (20.9%)	Oakville (10.3%)
Dufferin (19.8%)	North Toronto (10.0%)
Haliburton County and City Of Kawartha Lakes (19.8%)	Cambridge-North Dumfries (9.9%)

### Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days (\*lower is better)

Highest Eight	Lowest Eight
District of Kenora (46.7%)	District of Rainy River (14.3%)
Northern (41.7%)	Kingston (14.0%)
James and Hudson Bay Coasts (40.0%)	South Simcoe (14.0%)
Cochrane (38.3%)	Oakville (13.1%)
District of Thunder Bay (36.8%)	Bolton-Caledon (12.5%)
Western Champlain (32.6%)	Brant (12.0%)
Sudbury-Manitoulin-Parry Sound (32.3%)	Chatham City Centre (10.8%)
North West Mississauga (31.6%)	Essex South Shore (8.9%)

## Sub-Region Rankings

### Percent of residents who died in hospital (all hospital settings and acute only) (\*lower is better)

Highest Eight	Lowest Eight
James and Hudson Bay Coasts (75.0%)	Couchiching (41.9%)
District of Thunder Bay (69.7%)	Cambridge-North Dumfries (41.4%)
Eastern York Region (63.0%)	Essex South Shore (41.3%)
Scarborough North (62.5%)	South Simcoe (40.1%)
Scarborough South (61.6%)	Muskoka (38.5%)
East Mississauga (61.0%)	Guelph-Puslinch (38.1%)
North York West (60.9%)	Chatham City Centre (36.3%)
Cochrane (60.9%)	South Georgian Bay (33.4%)

### Percent of residents who die in acute hospital (\*lower is better)

Highest Eight	Lowest Eight
James and Hudson Bay Coasts (68.8%)	Northern York Region (35.9%)
District of Thunder Bay (62.1%)	Kitchener-Waterloo-Wilmot-Wellesley-Woolwich (34.7%)
Cochrane (57.7%)	Burlington (34.3%)
Eastern York Region (56.4%)	South Simcoe (33.3%)
District of Kenora (56.4%)	South Georgian Bay (32.7%)
North West Mississauga (55.9%)	Chatham City Centre (32.7%)
East Mississauga (55.81%)	Guelph-Puslinch (32.3%)
North Etobicoke Malton West Woodbridge (53.97%)	Brant (29.7%)

### Percent of patients who had two or more acute inpatient admissions in the last 30 days of life (\*lower is better)

Highest Eight	Lowest Eight
James and Hudson Bay Coasts (16.2%)	Cambridge-North Dumfries (4.3%)
District of Thunder Bay (9.5%)	Halton Hills (4.2%)
Elgin (9.3%)	Couchiching (4.1%)
District of Kenora (7.7%)	Essex South Shore (3.9%)
Oxford (7.7%)	City of Thunder Bay (3.7%)
Dufferin (7.6%)	Brant (3.6%)
Nipissing-Temiskaming (7.5%)	Oakville (3.1%)
North Simcoe (7.2%)	District of Rainy River (2.9%)

## Emergency Department

### Emergency Department Utilization

**Notes:**

This chapter and the accompanying workbook contain analysis based on the ED data provided by HAB.

Detailed analysis is provided in the accompanying Excel workbook:

**5.2 ED visits (2018).xlsx.**

The excel workbook contains:

1. **LHIN of Hospital Summary:** Unscheduled ED visits and visits by CTAS level, 2003/04-2016/17; number and proportion of visits that arrived by ambulance, were admitted to inpatient care, or left without completing treatment, 2013-2016/17; average Comprehensive Ambulatory Classification System (CACS) weighted, 2014/15-2016/17, and highest 10 CACS categories, 2016/17; and rankings, by LHIN of hospital.
2. **LHIN of Patient Summary:** Unscheduled ED visits, crude visit rates and visits by CTAS level, 2003/04-2016/17; age-specific number and rate of visits per 1000 population, 2016/17; number and proportion of visits that arrived by ambulance, were admitted to inpatient care or left without completing treatment, 2013/14-2016/17; average CACS weight 2014/15-2016/17, highest 10 CACS categories, 2016/17; and rankings, by LHIN of patient.
3. **Sub-region of Patient Summary:** Unscheduled ED visits, crude visit rates and visits by CTAS level, 2003/04-2016/17; age-specific number and rate of visits per 1000 population, 2016/17; number and proportion of visits that arrived by ambulance, were admitted to inpatient care or left without completing treatment, 2013/14-2016/17; highest 10 CACS categories, 2016/17; and rankings by sub-region of residence.
4. **Inflow Outflow:** Unscheduled ED visits for LHIN and sub-region patients by LHIN of hospital, 2016/17.
5. **Leading Causes:** Visits by LHIN of hospital and ICD-10-CA Chapter, 2016/17

**Prepared June 2018.**

**Excel workbooks provided by:** Health Analytics Branch, Ministry of Health and Long Term Care  
**Analysis & interpretation prepared by:** Rod Millard, Mississauga Halton LHIN.

This analysis includes unscheduled emergency department (ED) visits to comprehensive emergency departments and hospital-based urgent care centres as reported to the National Ambulatory Care Reporting System.

ED length of stay (EDLOS) refers to the length of time from the earlier of the time of visit triage or registration to either the time the patient left the ED or visit disposition. The 90<sup>th</sup> percentile refers to the length of time within which 9 out of 10 patients completed their ED visits.

The leading causes for the ED visits were assigned based on the chapter of the International Statistical Classification of Diseases and Related Health Problems (ICD 10 CA) main problem diagnosis.

### CTAS levels:

The Canadian Triage and Acuity Scale (CTAS) is used by hospital EDs to prioritize patient care according to the type and severity of their presenting signs and symptoms. The triage levels consist of a five point scale (level I-resuscitation, level II-emergent, level III-urgent, level IV-less urgent, level V-non urgent) that identify the relative urgency of the patient's need for treatment by a health care provider. The guidelines were developed by the Canadian Association of Emergency Physicians (CAEP) and were originally published in 1999, with revisions in 2004, 2008, and 2013. The revisions have included the addition of modifiers<sup>2</sup> and changes to the list of complaints to assist in the objective assignment of acuity levels. As a result, caution must be used when interpreting changes in CTAS levels over time as acuity levels may be influenced by changes to the CTAS guidelines. More information on triage level guidelines is available at: <http://caep.ca/resources/ctas>

<b>I Resuscitation:</b>	Conditions that are threats to life or limb (or imminent risk of deterioration) requiring immediate aggressive interventions.
<b>II Emergent:</b>	Conditions that are a potential threat to life limb or function, requiring rapid medical intervention or delegated acts.
<b>III Urgent:</b>	Conditions that could potentially progress to a serious problem requiring emergency intervention. These conditions may be associated with significant discomfort or affecting ability to function at work or activities of daily living.
<b>IV Less Urgent (Semi urgent):</b>	Conditions that are related to patient age, distress, or potential for deterioration or complications that would benefit from intervention or reassurance within 1-2 hours.
<b>V Non Urgent:</b>	Conditions that may be acute but non-urgent as well as conditions which may be part of a chronic problem with or without evidence of deterioration. The investigation or interventions for some of these illnesses or injuries could be delayed or even referred to other areas of the hospital or health care system.

- There were more than 6.3 million unscheduled ED visits to Ontario hospitals in 2016/17, an increase of 6.5% from 2013/14, of which about 6.2 million were made by Ontario residents.
- ED usage increased in 13 of the 14 LHINs, with ED usage growing fastest in **Central** LHIN (16.5% between FY13/4 and FY16/17) and declining in **Erie St. Clair** LHIN by 4.2% in the same time-period.
- The ED visit rate for the province was 442 unscheduled ED visits per 1,000 population in 2016/17, an increase of 3% over 2013/14.
- Crude ED visit rates by LHIN ranged from a low of 302 per 1,000 population in **Mississauga Halton** LHIN, to a high of 902 in **North West** LHIN.
  - Residents of the **North East** LHIN's **James and Hudson Bay Coasts** sub-region had the highest crude ED visit rate, at 2,253 ED visits per 1,000 population, more than 70% higher than the next highest sub-region, and over 5 times the provincial rate.
- Age adjusted ED visit rates per 1,000 population were highest for seniors, with ED visit rates for the 80+ population more than double (at 913 per 1000 population) those of the lowest user age group, those aged 45-64 (at 399 per 1,000 population).
- Age adjusted ED rates showed similar trends among LHINs as the crude ED usage rate, with **Mississauga Halton** LHIN having the lowest usage per 1,000 population for four of the 5 age groups reported, and **North West** LHIN having the highest usage for all age groups reported.

<sup>2</sup> Modifiers were divided into first and second order types; first order modifiers are those that are applicable to a wide number of different complaints (e.g. vital sign modifiers, pain severity); second order modifiers are specific to particular complaints (e.g. low blood sugar, mental health symptoms). Canadian Association of Emergency Physician (CAEP) Update, retrieved from: [http://www.cjem-online.ca/sites/default/files/CJEM\\_Vol\\_10,\\_No\\_3,\\_p224.pdf](http://www.cjem-online.ca/sites/default/files/CJEM_Vol_10,_No_3,_p224.pdf)

- The Canadian Triage and Acuity Scale (CTAS) is used by hospital EDs to prioritize a patient's care according to the type and severity of their presenting signs and symptoms. The triage levels consist of a five point scale (level I-resuscitation, level II-emergent, level III-urgent, level IV-less urgent, level V-non urgent) that identify the relative urgency of the patient's need for treatment by a health care provider. The guidelines were developed by the Canadian Association of Emergency Physicians (CAEP) and were originally published in 1999, with revisions in 2004, 2008, and 2013. The revisions had included the addition of modifiers<sup>3</sup> and changes to the list of complaints to assist in the objective assignment of acuity levels. As a result, caution must be used when interpreting changes in CTAS levels over time as acuity levels may be influenced by changes to the CTAS guidelines.
- In 2016/17, in Ontario hospitals, ~34% of unscheduled ED visits were in CTAS IV & V (less urgent/non urgent), with ~46% were in CTAS III (urgent), and 20% of visits in CTAS I & II (resuscitation/ emergent).
- Between 2013/14 and 2016/17, the number of visits in the lower acuity levels declined while those in higher acuity levels increased in Ontario hospitals. The number of visits in CTAS IV & V decreased by 2.0%, while CTAS III visits increased by 9.6% and CTAS I & II visits increased by 15.9%.
- The distribution of ED visits by CTAS level differed by LHIN. In FY16/17 **North East** LHIN had the highest ratio of ED visits with CTAS level IV and V (at 49.3%) while **Central West** LHIN had the lowest proportion (at 17.4%).
- The most common causes for ED visits for the province were diseases or disorders of the digestive system, diseases or disorders of the ear, nose or throat, and diseases or disorders of the skin & breast.
- These three groupings were among the 6 most prevalent in each LHIN and together accounted for a quarter of ED visits.
- Follow-up examinations and other non-emergent conditions accounted for 5.9% of ED visits and were the 4<sup>th</sup> most prevalent reason for ED visits in the province.
- The proportion of follow-up examinations and other non-emergent conditions as a reason for ED visits varied widely between LHINs, with a high of 11.7% of ED visits in **North West** LHIN and a low of 4.3% in **Central West** LHIN.
- 15.6% of the patients who visited an ED in Ontario hospitals arrived via ambulance in FY16/17.
- Arrival rates varied by LHIN, with the **fewest** (11.4%) arriving by ambulance in **North East** LHIN, and the highest proportions (19.7%) arriving by ambulance in **Toronto Central** and **Central West** LHINs.
- 9.8% of the patients who visited ED in Ontario hospitals were admitted to hospital as an inpatient FY16/17.
  - The **lowest** (8.0%) proportion were admitted in hospitals in **South East** LHIN, while the highest proportions (14.1%) were admitted in hospitals in **Toronto Central** LHIN.

---

<sup>3</sup> Modifiers were divided into first and second order types; first order modifiers are those that are applicable to a wide number of different complaints (e.g. vital sign modifiers, pain severity); second order modifiers are specific to particular complaints (e.g. low blood sugar, mental health symptoms). Canadian Association of Emergency Physician (CAEP) Update, retrieved from: [http://www.cjem-online.ca/sites/default/files/CJEM\\_Vol\\_10,\\_No\\_3,\\_p224.pdf](http://www.cjem-online.ca/sites/default/files/CJEM_Vol_10,_No_3,_p224.pdf).



### Unscheduled emergency department visit utilization, LHIN of hospital, 2016/17

LHIN of hospital	ED Visits per LHIN of Hospital†	% of visits by CTAS level (LHIN of Hospital)			ED Visits (Ontario Residents) per 1000 Population
		I & II	III	IV & V	
Erie St. Clair	288,075	23.0%	47.9%	29.1%	470.5
South West	634,689	16.5%	38.5%	44.7%	603.1
Waterloo Wellington	283,246	18.3%	54.0%	27.5%	385.4
Hamilton Niagara Haldimand Brant	690,930	21.4%	48.3%	30.0%	479.3
Central West	268,255	30.8%	51.8%	17.4%	340.1
Mississauga Halton	418,458	26.7%	45.9%	27.3%	301.7
Toronto Central	576,030	24.2%	50.8%	24.8%	337.7
Central	620,887	24.7%	47.3%	28.0%	323.9
Central East	610,686	17.5%	48.6%	33.9%	408.9
South East	308,479	15.4%	39.9%	44.5%	629.9
Champlain	681,329	19.1%	45.1%	35.7%	444.1
North Simcoe Muskoka	259,420	18.6%	41.4%	40.0%	525.9
North East	454,717	13.1%	35.2%	49.3%	806.6
North West	216,920	16.2%	44.2%	38.4%	901.5
Ontario	6,312,121	20.4%	45.6%	33.7%	442.2

‡Includes visits with missing/unknown CTAS level.

### Unscheduled emergency department visits by leading CACS groups, Ontario hospitals, 2016/17

Leading CACS Groups (Ontario) FY 16/17	Ontario	
	#	%
(B128) Disease or Disorder Digestive System	610,114	9.9%
(B112) Disease or Disorder Ear, Nose or Throat	503,538	8.1%
(B132) Disease or Disorder Skin & Breast	483,894	7.8%
(B187) Follow-up Examination and Other Non Emergent Condition	367,415	5.9%
(B136) Disease or Disorder Musculoskeletal and Connective Tissue	366,697	5.9%
(B180) Contusion, Dislocation, Nerve & Other Soft Tissue Injury	345,945	5.6%
(B122) Other Disease or Disorder Cardiac System	344,163	5.6%
(B116) Disease or Disorder Respiratory System	304,308	4.9%
(B005) Other Condition with Acute Admission/Transfer	298,228	4.8%
(B188) Open Wound and Vascular Injury	247,485	4.0%

‡Includes visits with missing/unknown CTAS level.

†Excludes out of province residents.

§Crude rate for residents aged 1-74 years.



### Crude ED Visit Rates / 1,000 Population, Highest / Lowest Ontario sub-regions, 2016/17

LHIN	Sub-Region ID	Sub-region of patient residence	ED visit rate/1,000 population	Sub-region Rank (Lowest and Highest 8)
ESC	102	Tecumseh Lakeshore Amherstburg LaSalle	236	1 of 76
MH	605	North West Mississauga	252	2 of 76
TC	703	North Toronto	256	3 of 76
CEN	804	Eastern York Region	258	4 of 76
MH	606	South West Mississauga	265	5 of 76
CE	906	Scarborough North	267	6 of 76
HNHB	402	Burlington	278	7 of 76
MH	604	Oakville	284	8 of 76
NE	1301	Nipissing-Temiskaming	841	69 of 76
CH	1104	Western Champlain	871	70 of 76
SW	201	Grey Bruce	932	71 of 76
NW	1405	Northern	1028	72 of 76
NE	1304	Cochrane	1135	73 of 76
NW	1402	District of Rainy River	1259	74 of 76
NW	1403	District of Thunder Bay	1341	75 of 76
NE	1305	James and Hudson Bay Coasts	2253	76 of 76

‡Excludes patients that could not be assigned to a sub-region.

†Excludes out of province residents.

## Emergency Department Performance

### Notes:

This section and the accompanying workbook contain analysis based on the *ED Analytics, Access to Care Analytics*

Detailed analysis is provided in the accompanying Excel workbook:  
*Data Request ER0137D – IHSP ED Data: FY 2013/14 to FY 2017/18*

The excel workbook contains:  
*Provincial, LHIN, Hospital Group and Site Level*  
*Patient Residence Sub-Region Level*

**Prepared June 2018**

**Excel workbooks provided by:** Cancer Care Ontario

**Analysis & interpretation prepared by:** Laera Gattoni, Toronto Central LHIN

### All emergency department visits, Ontario

- Total ED volumes in Ontario increased from 5,418,153 in fiscal year 2013/14 to 5,887,643 in fiscal year 2017/18. In fiscal year 2017/18, **North West** LHIN had the **smallest** volumes (135,203), while **Central** LHIN had the **largest** (635,614).
- 90<sup>th</sup> percentile offload time increased from 39 minutes in fiscal year 2013/14 to 46 minutes in fiscal year 2017/18. In fiscal year 2017/18, **South East** LHIN and **North West** LHIN had the **shortest** (10 minutes) and **Hamilton Niagara Haldimand Brant** had the **longest** (97 minutes) 90<sup>th</sup> percentile offload times.
- The 90<sup>th</sup> percentile time to PIA remained constant, three hours, between fiscal years 2013/14 and 2017/18 in Ontario. In fiscal year 2017/18, **Central West** LHIN had the **shortest** (two hours) and **Erie St. Clair** had the **longest** (four hours) 90<sup>th</sup> percentile time to PIA.
- The percent time to PIA within two hours decreased from 76% in fiscal year 2013/14 to 74% in 2017/18 in Ontario. **Waterloo Wellington** LHIN had the **smallest** (64%) and **Central West** LHIN had the **largest** (85%) percentage with time to PIA within two hours.
- The 90<sup>th</sup> percentile consult to arrival time remained constant, four hours, between fiscal years 2013/14 and 2017/18 in Ontario. **North East** LHIN had the **lowest** (one hour) and **Toronto Central** LHIN had the **highest** (six hours) 90<sup>th</sup> percentile consult to arrival time of all the LHINs in fiscal year 2017/18.
- The percentage of consult requests to arrival within two hours decreased from fiscal year 2013/14 (77%) to 2017/18 (76%) in Ontario. **Toronto Central** LHIN had the **lowest** (59%) and **North East** LHIN had the **highest** (96%) percentage of consult requests to arrival within two hours of all the LHINs in fiscal year 2017/18.
- The 90<sup>th</sup> percentile time to disposition remained constant, seven hours, between fiscal years 2013/14 and 2017/18 in Ontario. In fiscal year 2017/18, **North East** LHIN had the **shortest** (six hours) and **Toronto Central** LHIN had the **longest** (nine hours) 90<sup>th</sup> percentile time to disposition.
- The 90<sup>th</sup> percentile ED length of stay increased by 13% from eight hours in fiscal years 2013/14 to nine hours in fiscal years 2017/18 in Ontario. In fiscal year 2017/18, **North East** LHIN had the **shortest** (seven hours) and **Hamilton Niagara Haldimand Brant** had the **longest** (11 hours) 90<sup>th</sup> percentile ED length of stay.

### Non-admitted low acuity emergency department visits, Ontario

- ED volumes decreased from 1,827,910 visits in fiscal year 2013/14 to 1,769,505 visits in fiscal year 2017/18 in Ontario.

- **North West** LHIN had the **fewest** (33,597) and **South West** LHIN had the **largest** (253,156) volumes of non-admitted low acuity ED visits of all the LHINs in fiscal year 2017/18.
- 90<sup>th</sup> percentile time to disposition and the 90<sup>th</sup> percentile ED length of stay remained at four hours between the fiscal years 2013/14 and 2017/18 in Ontario.
- For both measures in fiscal year 2017/18, **Central West** LHIN had the **shortest** (four hours) and **Waterloo Wellington** LHIN had the **longest** (five hours) 90<sup>th</sup> percentile wait times of all the LHINs.
- The percentage within target of four hours for non-admitted low acuity visits decreased from 90% in fiscal year 2013/14 to 87% in 2017/18.
- Of all the LHINs in fiscal year 2017/18, **Champlain** LHIN had the **lowest** (81%) and **Central West** LHIN had the **highest** (93%) percent within target of four hours for non-admitted low acuity ED visits.

#### Non-admitted high acuity emergency department visits, Ontario

- ED volumes for non-admitted high acuity visits increased from 3,016,448 in fiscal year 2013/14 to 3,497,096 in 2017/18 in Ontario.
- **North West** LHIN had the **smallest** (86,633) and **Central** LHIN had the **largest** (411,693) volumes for non-admitted high acuity visits of all the LHINs in fiscal year 2017/18.
- 90<sup>th</sup> percentile time to disposition and the 90<sup>th</sup> percentile ED length of stay remained at seven hours between the fiscal years 2013/14 and 2017/18 in Ontario.
- For both measures in fiscal year 2017/18, **North East** LHIN had the **shortest** (six hours) 90<sup>th</sup> percentile times of all the LHINs. Erie-St. Clair LHIN had the **longest** (eight hours) 90<sup>th</sup> percentile time to disposition and **Champlain** LHIN had the **longest** (eight hours) 90<sup>th</sup> percentile ED length of stay of all the LHINs in 2017/18 for non-admitted high acuity visits.
- The percentage within target of eight hours for non-admitted high acuity visits decreased from 94% in fiscal year 2013/14 to 93% in 2017/18.
- Of all the LHINs in fiscal year 2017/18, **Champlain** LHIN had the **lowest** (90%) and **North East** LHIN had the **highest** (97%) percent within target of eight hours for non-admitted high acuity ED visits.

#### Admitted ED visits, Ontario

- ED volumes for patients admitted to inpatient beds increased from 567,976 in fiscal year 2013/14 to 610,646 in 2017/18 in Ontario. Across all years, the admission rates increased with acuity.
  - In 2017/18, hospitals in the **North Simcoe Muskoka** LHIN admitted the lowest proportion of patients triaged at CTAS level I. Hospitals in the **North West** LHIN admitted the highest proportion.
  - In 2017/18, hospitals in the **Central** LHIN admitted the lowest proportion of patients triaged at CTAS level II. Hospitals in the **Toronto Central** LHIN admitted the highest proportion.
  - In 2017/18, hospitals in the **Central West** LHIN admitted the lowest proportion of patients triaged at CTAS level III. Hospitals in the **Hamilton Niagara Haldimand Brant** LHIN admitted the highest proportion.
  - In 2017/18, hospitals in the **Mississauga Halton** LHIN admitted the lowest proportion of patients triaged at CTAS level IV. Hospitals in the **Hamilton Niagara Haldimand Brant** LHIN admitted the highest proportion.
  - In 2017/18, hospitals in the **South West** LHIN admitted the lowest proportion of patients triaged at CTAS level V. Hospitals in the **Erie St. Clair** LHIN admitted the highest proportion.
- Of all the LHINs, **North West** hospitals admitted had the **fewest** (14,950) and **Toronto Central** hospitals admitted the **most** (80,164) patients to inpatient beds from the ED in fiscal year 2017/18.
- The 90<sup>th</sup> percentile time to decision to admit remained stable at 12 hours from fiscal year 2013/14 to fiscal year 2017/18 in Ontario.

- In fiscal year 2017/18, **North East** hospitals took the **shortest** (nine hours) and **Central East** hospitals took the **longest** (15 hours) 90<sup>th</sup> percentile time to decide to admit patients to inpatient beds.
- The 90<sup>th</sup> percentile ED length of stay increased by 18% from 28 hours in fiscal year 2013/14 to 33 hours in 2017/18, and the 90<sup>th</sup> percentile time to inpatient bed increased by 19% from 21 hours to 25 hours within the same timeframe in Ontario.
- Of all the LHINs, Erie-St. Clair hospitals had the **lowest** (14 hours and 22 hours) and **Central West** hospitals had the **highest** (40 hours and 48 hours) 90<sup>th</sup> percentile time to inpatient bed and ED length of stay for patients admitted to inpatient beds from the ED in fiscal year 2017/18.
- The percent admitted within target of eight hours in Ontario decreased from 43% in fiscal year 2013/14 to 36% in 2017/18.
- Of all the LHINs in fiscal year 2017/18, **Hamilton Niagara Haldimand Brant** hospitals had the **lowest** (26%) and **South West** hospitals had the **highest** (56%) percent admitted within eight hour target.

## Emergency department visits, Ontario

Measure	Ontario					Range across the LHINs, FY 17/18
	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	
<b>ED Volumes (All)</b>	5,418,153	5,571,948	5,699,500	5,772,082	5,887,643	135,203 - 635,614
Ambulance Offload Time - 90 <sup>th</sup> Percentile (mins)	39	43	40	42	46	10 - 97
Time to PIA - 90 <sup>th</sup> percentile	3.0	3.1	3.0	3.0	3.2	2.4 - 4.1
% with Time to PIA <= 2 Hours	76%	76%	76%	76%	74%	64% - 85%
Consult Request to Arrival - 90 <sup>th</sup> Percentile	3.8	3.6	3.5	3.7	3.9	0.9 - 5.5
% of Consults with Consult Request to Arrival <= 2 Hrs	77%	78%	78%	77%	76%	59% - 95%
Time to Disposition (All) - 90 <sup>th</sup> Percentile	7.1	7.1	7.1	7.1	7.3	5.6 - 8.8
ED LOS - 90 <sup>th</sup> Percentile	8.0	8.0	8.0	8.3	8.6	6.5 - 11.4
<b>ED Volumes - Non-Admitted Low Acuity</b>	1,827,910	1,800,882	1,808,377	1,782,548	1,769,505	<b>33,597 - 253,156</b>
% Within Target of 4 Hrs - Non-Admitted Low Acuity	90%	90%	90%	89%	87%	81% - 93%
Time to Disposition for Non-Admitted Low Acuity - 90 <sup>th</sup> Percentile	4.0	4.0	4.1	4.1	4.3	3.6 - 5.1
ED LOS for Non-Admitted Low Acuity - 90 <sup>th</sup> Percentile	4.0	4.0	4.1	4.2	4.4	3.6 - 5.1
<b>ED Volumes - Non-Admitted High Acuity</b>	3,016,448	3,183,804	3,293,858	3,386,880	3,497,096	<b>86,633 - 411,693</b>
% Within Target of 8 Hrs - Non-Admitted High Acuity	94%	94%	94%	94%	93%	90% - 97%
Time to Disposition for Non-Admitted High Acuity - 90 <sup>th</sup> Percentile	7.2	7.1	7.1	7.1	7.2	5.8 - 8.4
ED LOS for Non-Admitted High Acuity - 90 <sup>th</sup> Percentile	6.9	6.8	6.8	6.9	7.0	5.6 - 8.0
<b>ED Volumes - Admitted</b>	567,976	581,709	590,301	596,093	610,646	14,950 - 80,164
Admission Rate - CTAS 1	59%	59%	58%	58%	57%	45% - 64%
Admission Rate - CTAS 2	25%	25%	24%	24%	24%	21% - 28%
Admission Rate - CTAS 3	10%	10%	10%	10%	9%	7% - 12%
Admission Rate - CTAS 4	1%	1%	1%	1%	1%	1% - 2%
Admission Rate - CTAS 5	1%	1%	1%	1%	1%	0% - 2%
Time to Disposition for Admitted - 90 <sup>th</sup> Percentile	11.7	11.8	11.7	11.9	12.2	9.1 - 15.0
ED LOS for Admitted - 90 <sup>th</sup> Percentile	28	30	28	31	33	22 - 48
% Within Target of 8 Hrs - Admitted	43%	41%	41%	38%	36%	26% - 56%
Time to Inpatient Bed - 90 <sup>th</sup> Percentile	21	23	21	24	25	14 - 40

## Acute Care

### Notes:

This chapter contains and the accompanying workbook contains analysis and interpretation of separations, days, and average lengths of stay, and inflow/outflow in Ontario acute care hospitals (2006/07-2016/17).

Note that some records can be assigned to a LHIN, but not a sub-region; in these cases, they are classified as SR unassigned (e.g. “**Erie St. Clair** LHIN, SR Unassigned”). These unassigned sub-regions are excluded in the range calculations and sub-region rankings.

Sub-region 406, **Haldimand Norfolk** includes all of Norfolk County CSD which is shared between the **Hamilton Niagara Haldimand Brant (HNHB)** and **South West** LHINs; therefore, sums for the **HNHB** sub-regions will be greater than the **HNHB** LHIN total.

Additionally, there may be other cases where sub-regions do not sum to LHIN totals, due to how sub-regions and LHINs are assigned in the crosswalks.

Detailed analysis is provided in the accompanying Excel workbook:

### **5.1 Acute care (2018)**

The excel workbook contains:

1. *LHIN of Hospital Summary: Acute care and ALC separations, days, % ALC, and mean lengths of stay, 2006/07-2016/17; mean HBAM Inpatient Grouper (HIG) weights 2014/15-2016/17; and rankings, by LHIN of hospital*
2. *LHIN of Patient Summary: Acute care and ALC separations, crude acute separation and day rates, days, and mean lengths of stay, 2006/07-2016/17; mean HIG weights, 2014/15-2016/17; age specific separations and separation rates, 2016/17; number and proportion of acute days for leading HIGs, 2016/17; and rankings, by LHIN of patient*
3. *Sub-region of Patient: Acute care and ALC separations, crude acute separation and day rates, days, mean lengths of stay and mean HIG weights, and number and proportion of acute days for leading HIGs, 2016/17; and rankings, by sub-region area of residence*
4. *Inflow Outflow: Acute care separations for LHIN and sub-region patients by LHIN of hospital, 2016/17*

### **Prepared July 2018**

**Excel workbooks provided by:** Health Analytics Branch, Ministry of Health and Long Term Care  
**Analysis & interpretation prepared by:**

LHIN of Patient: *Andrew Bonner, Champlain LHIN*

LHIN of Hospital: *Joan Tonon, North East LHIN*

Inflow/Outflow: *Marilee Suter, Karen Leung, Suzanne Way, Central East LHIN*

## Acute Care Utilization—LHIN of Patient

### Acute Separations

- In 2016/17, there were 1,028,979 acute care separations (discharges), 5,455,693 acute days, and 6,477,528 total days (including acute and alternate level of care days) for Ontario residents in Ontario hospitals.
- The acute separation rate for Ontario residents was 74 separations per 1,000 residents in 2016/17 but varied substantially by LHIN of patient residence. Rates were the lowest for residents of the **Mississauga Halton** LHIN and highest for residents of the **North West** LHIN. From 2013/14 to 2016/17, the overall acute separation rate for Ontario residents increased by 0.5%.
  - Residents of the following sub-regions had the lowest and highest mean acute separation rates\*:

Lowest Mean Acute Separation Rates	Highest Mean Acute Separation Rates
<ul style="list-style-type: none"><li>- North West Mississauga (MH)</li><li>- Eastern York Region (C)</li><li>- Western York Region (C)</li><li>- Bolton-Caledon (CW)</li><li>- South West Mississauga (MH)</li><li>- Oakville (MH)</li><li>- Western Ottawa (Ch)</li><li>- Scarborough North (CE)</li></ul>	<ul style="list-style-type: none"><li>- James and Hudson Bay Coasts (NE)</li><li>- Northern (NW)</li><li>- District of Thunder Bay (NW)</li><li>- District of Rainy River (NW)</li><li>- Cochrane (NE)</li><li>- Nipissing-Temiskaming (NE)</li><li>- City of Thunder Bay (NW)</li><li>- District of Kenora (NW)</li></ul>

### Total Days

- The rate of acute days for Ontario residents was 390 acute days per 1,000 residents in 2016/17. Rates were the lowest for residents of the **Central** LHIN (309) and highest for the **North West** LHIN (644) in 2016/17.
  - Residents of the following sub-regions in comparison to Ontario residents as a whole, had the lowest and highest mean rate of acute care days\*:

Lowest Mean Acute Days	Highest Mean Acute Days
<ul style="list-style-type: none"><li>- Eastern York Region (C)</li><li>- North West Mississauga (MH)</li><li>- Bolton-Caledon (CW)</li><li>- Western York Region (C)</li><li>- Western Ottawa (Ch)</li><li>- Bramalea (CW)</li><li>- Durham West (CE)</li><li>- Brampton (CW)</li></ul>	<ul style="list-style-type: none"><li>- James and Hudson Bay Coasts (NE)</li><li>- Northern (NW)</li><li>- District of Thunder Bay (NW)</li><li>- District of Rainy River (NW)</li><li>- Cochrane (NE)</li><li>- Nipissing-Temiskaming (NE)</li><li>- City of Thunder Bay (NW)</li><li>- District of Kenora (NW)</li></ul>

### Mean Length of Stay

- The mean total length of stay (including acute days and days waiting for an alternate level of care) for Ontario residents was 6.3 days. Residents of **North West** LHIN had the **longest** mean total (7.4 days) length of stay, while residents of **Central West** LHIN had the **shortest** total length of stay (5.3 days) in 2016/17.
  - Residents of the following sub-regions had the lowest and highest mean total length of stay\*

Lowest Mean Length of Stay	Highest Mean Length of Stay
<ul style="list-style-type: none"> <li>Milton (MH)</li> <li>Dufferin (CW)</li> <li>Bramalea (CW)</li> <li>Huron Perth (SW)</li> <li>Elgin (SW)</li> <li>Bolton-Caledon (CW)</li> <li>Cambridge-North Dumfries (WW)</li> <li>Brampton (CW)</li> </ul>	<ul style="list-style-type: none"> <li>James and Hudson Bay Coasts (NE)</li> <li>District of Thunder Bay (NW)</li> <li>District of Kenora (NW)</li> <li>Northern (NW)</li> <li>District of Rainy River (NW)</li> <li>South Etobicoke (MH)</li> <li>Peterborough City and County (CE)</li> <li>West Toronto (TC)</li> </ul>

- The mean acute length of stay for Ontario residents was 5.3 days in 2016/17. **Champlain** LHIN residents had the **longest** mean acute length of stay (5.7 days), while residents of **Waterloo Wellington** LHIN had the **shortest** acute length of stay (4.7 days) in 2016/17.
  - Residents of the following sub-regions had the lowest and highest mean acute length of stay\*:

Lowest Mean Acute Length of Stay	Highest Mean Length of Stay
<ul style="list-style-type: none"> <li>Milton (MH)</li> <li>Dufferin (CW)</li> <li>Elgin (SW)</li> <li>Huron Perth (SW)</li> <li>South Georgian Bay (NSM)</li> <li>Wellington (WW)</li> <li>Guelph-Puslinch (WW)</li> <li>Cambridge-North Dumfries (WW)</li> </ul>	<ul style="list-style-type: none"> <li>James and Hudson Bay Coasts (NE)</li> <li>South Etobicoke (MH)</li> <li>Northern (NW)</li> <li>Western Champlain (Ch)</li> <li>North York West (C)</li> <li>West Toronto (TC)</li> <li>South West Mississauga (MH)</li> <li>East Mississauga (MH)</li> </ul>

### HIG Weight

- The Ontario HBAM Inpatient Grouper (HIG) (Similar to CMG+) aggregates acute care separations with similar resource use and clinical characteristics based on most responsible diagnosis and/or principal intervention. The HIG weight is a relative cost value that reflects the resources consumed during each acute care stay. The mean HIG weight for Ontario residents in 2014/15 was 1.51 (based on 2016/17 HIG weights) increasing to 1.55 in 2016/17. **South East** LHIN residents had the highest mean HIG weight (1.69) in 2016/17, while **Central West** LHIN residents had the lowest (1.40).
- The highest 3 HIGs accounting for the highest proportion of acute care days for Ontario residents in 2016/17 were: 196-heart failure without coronary angiogram, 138-viral/unspecified pneumonia, and 810-palliative care. The leading HIGs vary by LHIN and LHIN sub-region.

\* Excludes unassigned sub-regions. In the event an unassigned sub-region falls within the highest or lowest 8 ranked sub-regions, the next highest or lowest sub-region is included.



### Acute Care Hospital Utilization by LHIN of Patient Residence, 2016/17

LHIN of Patient	Acute separations	Acute separations/ 1000 Population	Total Days	Mean total LOS	Acute Days	Mean Acute LOS	Mean HIG Weight
Erie St. Clair	53,049	82.5	321,594	6.1	280,651	5.3	1.55
South West	83,841	85.4	484,166	5.8	430,957	5.2	1.46
Waterloo Wellington	54,868	70.1	290,688	5.3	258,557	4.7	1.41
HHNB	120,167	82.3	781,258	6.5	654,012	5.4	1.59
Central West	63,173	67.6	331,821	5.3	305,905	4.8	1.4
Mississauga Halton	72,447	57.4	470,190	6.5	400,206	5.5	1.54
Toronto Central	82,369	64.1	558,295	6.8	455,685	5.5	1.65
Central	111,274	58.8	687,065	6.2	584,272	5.3	1.56
Central East	114,283	70.5	714,261	6.2	602,177	5.3	1.56
South East	43,065	86.5	280,186	6.5	234,634	5.5	1.69
Champlain	94,662	70.9	632,331	6.7	535,713	5.7	1.57
North Simcoe Muskoka	40,387	83.0	240,491	6.0	196,265	4.9	1.47
North East	62,223	110.6	438,586	7.0	331,231	5.3	1.57
North West	27,187	115.6	201,959	7.4	151,509	5.6	1.5
Unknown	5,984		44,637	7.5	33,919	5.7	1.88
Out-of-province	12,329		65,272	5.3	63,219	5.1	1.66
<b>Ontario Residents*</b>	<b>1,028,979</b>	<b>73.6</b>	<b>6,477,528</b>	<b>6.3</b>	<b>5,455,693</b>	<b>5.3</b>	<b>1.55</b>

\*Ontario residents exclude Out-of-province

### Acute Care Hospital Utilization (Excluding ALC) by LHIN of Patient, 2016/17

	Ontario Residents* 2016-17	Trend over time (2006-16)	Range across the LHINs	Range across all sub-regions**
<b>Acute Care Measures</b>				
<b>Total Population</b>	13,982,984		235,148 – 1,893,948	7,602 – 561,022
<b>Acute Separations</b>	1,028,979	Increasing	27,187 – 120,167	1,144 – 45,989
<b>Acute Separation Rate per 1,000 Population</b>	74	Steady	57 – 116	49 – 151
<b>Acute Days</b>	5,455,693	Increasing	151,509 – 654,012	8,713 – 260,996
<b>Acute Days Rate per 1,000 Population</b>	390	Decreasing	309 – 644	244 – 1,146
<b>Total Days</b>	6,477,528	Steady	201,959 – 781,258	10,555 – 322,368
<b>Total Days Rate per 1,000 Population</b>	463	Steady	355 – 859	264 – 1,389
<b>Mean Acute Length of Stay (LOS)</b>	5.3	Decreasing	4.7 – 5.7	4.2 – 7.6
<b>Mean Total Length of Stay (LOS)</b>	6.3	Steady	5.3 – 7.4	4.4 – 9.2
<b>Mean HIG Weight</b>	1.55	Increasing	1.40 – 1.69	
<b>Leading HIGs (Acute Care Days)†</b>				
<b>(196) Heart Failure w/o Coronary Angiogram</b>	175,995	Not Available	5,024 – 25,007	101 – 10,720
<b>(138) Viral/Unspecified Pneumonia</b>	119,810	Not Available	3,068 – 14,128	133 – 4,395
<b>(810) Palliative Care</b>	110,197	Not Available	1,639 – 18,212	75 – 7,232

\* Ontario residents exclude Out-of-province

\*\* Excludes values from unassigned sub-regions. Ontario and LHIN totals include patients from unassigned sub-regions.

† Leading HIGs include Out-of-province for Ontario Values

### Acute Care Utilization – LHIN of Hospital

- In 2016/17, there were 1,041,308 acute separations, 5,518,912 acute days, and 6,542,800 total days at Ontario hospitals. **Toronto Central** LHIN hospitals accounted for the largest proportion of these separations (15.3%) and days (16.6% acute and 16.1% total).

### Acute Separations—LHIN of Hospital

- There were 1,041,322 acute care separations from Ontario acute care hospitals in 2016/17.
- **Toronto Central** LHIN had the **highest** volume of separations by LHIN of hospital (159,315) and **Hamilton Niagara Haldimand Brant** LHIN had the 2<sup>nd</sup> highest volume of separations (119,062)
- **North West** LHIN had the **lowest** volume of separations by LHIN of hospital (26,295) and **North Simcoe Muskoka** LHIN had the 2<sup>nd</sup> lowest volume of separations (35,385)
- Between 2013/14 and 2016/17, acute separations increased by 3.8%. **North East** LHIN hospitals had the **largest** percentage decrease in separations (3.8%). **Waterloo Wellington** LHIN hospitals showed the **largest** percentage increase (9.1%).

### Acute Days

- Acute days increased by 2.2% between 2013/14 and 2016/17 in Ontario hospitals. **North West** LHIN (7.2%) had the **largest** percentage decrease in acute days and **Central** LHIN showed the **largest** percentage increase in acute days (12.9%).
- In 2016/17, the mean acute length of stay for Ontario hospitals was 5.3 days. The mean acute length of stay ranged from 4.5 days in **Waterloo Wellington** LHIN to 5.8 days in **Toronto Central** LHIN.
- The Ontario mean acute length of stay decreased from 5.4 days to 5.3 days from 2013/14 to 2016/17.

### Total Days

- Total days increased by 4.2% between 2013/14 and 2016/17 in Ontario hospitals. **Erie St. Clair** LHIN (5.9%) had the **largest** percentage decrease in total days. **Central** LHIN showed the **largest** percentage increase in total days (15.5%).
- In 2016/17, the mean total length of stay for Ontario hospitals was 6.3 days. The mean total length of stay ranged from 5.0 days in **Central West** LHIN to 7.3 days in **North West** LHIN.
- The Ontario mean total length of stay remained stable between 2013/14 and 2016/17.

### HBAM Inpatient Grouper (HIG) Weight

- The mean HIG weight for Ontario was 1.51 in 2014/15 (based on 2017 HIG weights) and increased to 1.55 in 2016/17.
- **Toronto Central** LHIN hospitals (1.94) had the highest mean HIG weight in 2016/17, while **Central West** LHIN hospitals (1.23) had the lowest.

### Acute care hospital utilization, Ontario hospitals, 2016/17

Measure	Ontario hospitals	Ontario hospitals % change 2013/14 – 2016-17	Range within LHINs
Acute separations	1,041,308		26,295 - 159,315
Total days	6,542,800	3.1%	193,259 - 1,050,391
Mean total LOS	6.3	5.8%	5.0 - 7.3
Acute days	5,518,912		142,875 - 917,167
Mean acute LOS	5.3	2.4%	4.5 - 5.8
Mean HIG weight	1.55		1.23 - 1.94

### Acute care hospital utilization by LHIN of hospital, 2016/17

LHIN of hospital	Acute separations	Total days	Mean total LOS	Acute days	Mean acute LOS	Mean HIG Weight
Erie St. Clair	45,365	272,338	6.0	231,820	5.1	1.44
South West	91,008	537,310	5.9	481,401	5.3	1.51
Waterloo Wellington	49,623	256,085	5.2	225,343	4.5	1.33
Hamilton Niagara Haldimand Brant	119,054	777,278	6.5	650,836	5.5	1.60
Central West	49,603	249,749	5.0	229,479	4.6	1.23
Mississauga Halton	70,675	452,406	6.4	383,723	5.4	1.48
Toronto Central	159,315	1,050,391	6.6	917,167	5.8	1.94
Central	103,029	616,039	6.0	517,794	5.0	1.42
Central East	92,077	576,445	6.3	470,405	5.1	1.42
South East	40,264	264,915	6.6	219,333	5.5	1.67
Champlain	102,708	680,251	6.6	583,676	5.7	1.59
North Simcoe Muskoka	35,384	210,598	6.0	166,093	4.7	1.32
North East	56,908	405,736	7.1	298,967	5.3	1.50
North West	26,295	193,259	7.3	142,875	5.5	1.41
Ontario hospitals	1,041,308	6,542,800	6.3	5,518,912	5.3	1.55

### Acute Separations—LHIN of Patient

- **Hamilton Niagara Haldimand Brant** LHIN had the **highest** volume of separations by LHIN of patient (120,171) and **Central East** LHIN had the 2<sup>nd</sup> highest volume of separations by LHIN of patient (114,284)
- **North West** LHIN had the **lowest** volume of separations by LHIN of patient (27,187) and **North Simcoe Muskoka** LHIN the 2<sup>nd</sup> lowest volume of separations by LHIN of patient (40,388).
  - *Note that there is some correspondence between the number of acute care separations and the population of the LHIN.*
    - Residents of the following sub-regions had the eight lowest and highest number of separations (ranked out of 76 sub-regions):

Lowest Acute Separations	Highest Acute Separations
<ul style="list-style-type: none"> <li>- Chatham City Centre (ESC)—4,259</li> <li>- Halton Hills (MH)—4,157</li> <li>- Rural Hastings (SE)—3,298</li> <li>- Northern (NW)—2,966</li> <li>- District of Thunder Bay (NW)—2,433</li> <li>- District of Rainy River (NW)—2,396</li> <li>- Bolton-Caledon (CW)—2,210</li> <li>- James and Hudson Bay Coasts (NE)—1,144</li> </ul>	<ul style="list-style-type: none"> <li>- Hamilton (HNHB)—45,992</li> <li>- London Middlesex (SW)—34,788</li> <li>- Niagara (HNHB)—33,791</li> <li>- Central Ottawa (Ch)—30,139</li> <li>- Scarborough South (CE)—28,947</li> <li>- Western York Region (C)—27,091</li> <li>- Kitchener-Waterloo-Wellesley-Wilmot-Woolwich (WW)—26,263</li> <li>- North York Central (C)—24,531</li> </ul>

### Acute Care Inflow/Outflow

#### Data Notes:

- Proportion of inflow includes residents who live in a different LHIN and out-of-province residents
- Ranges across the sub-regions for separations and outflow exclude separations for patients with an unassigned sub-region

### Inflow - Outflow, Ontario hospitals, 2016/17

Measure	Ontario Hospitals	Range across the LHINs	Range across the sub-regions where the separation occurred at the corresponding LHIN <sup>†</sup>	Range across the sub-regions (sub-region of patient) <sup>†</sup>
Acute Separations	1,041,322	26,295 – 159,315	912 – 43,887	1,144-45,992
% inflow	1.2%	1.4%-55.0%	N/A	N/A
% outflow	N/A	2.3%-34.7%	N/A	1.4%-64.3%

- <sup>†</sup>Excludes unassigned sub-region

### Inflow across the LHINs

- The proportion of inflow ranged from 1.4% to 55.0% across the LHINs.
- **Toronto Central** LHIN had the **highest** proportion of inflow (55.0%) and **Central** LHIN had the 2<sup>nd</sup> highest proportion of inflow (29.4%).
- **Erie St. Clair** LHIN had the **lowest** proportion of inflow (1.4%) and **North West** LHIN had the 2<sup>nd</sup> lowest proportion of inflow (1.6%).
- The proportion of inflow is not available by sub-region.

### Outflow across the LHINs

- The proportion of outflow ranged from 2.3% to 34.7% across the LHINs
- **Central West** LHIN (34.7%) had the **highest** proportion of outflow and **Central** LHIN had the 2<sup>nd</sup> highest proportion of outflow (34.6%)
- **Champlain** LHIN had the **lowest** proportion of outflow (2.3%) and **North West** LHIN had the 2<sup>nd</sup> lowest proportion of outflow (4.8%)
  - Residents of the following sub-regions had the eight lowest and highest proportion of outflow (patients discharged from a hospital in a LHIN other than the LHIN of which they are a resident):

Lowest Outflow	Highest Outflow
<ul style="list-style-type: none"> <li>- <b>Elgin (SW)</b>—3.2%</li> <li>- <b>London Middlesex (SW)</b>—2.9%</li> <li>- <b>Northern (NW)</b>—2.8%</li> <li>- <b>District of Kenora (NW)</b>—2.5%</li> <li>- <b>Eastern Champlain (Ch)</b>—2.3%</li> <li>- <b>Western Ottawa (Ch)</b>—1.6%</li> <li>- <b>Eastern Ottawa (Ch)</b>—1.5%</li> <li>- <b>Central Ottawa (Ch)</b>—1.4%</li> </ul>	<ul style="list-style-type: none"> <li>- <b>South Etobicoke (MH)</b>—64.3%</li> <li>- <b>North York Central (C)</b>—46.6%</li> <li>- <b>North York West (C)</b>—42.1%</li> <li>- <b>North Etobicoke Malton West Woodbridge (CW)</b>—41.4%</li> <li>- <b>Scarborough North (CE)</b>—41.0%</li> <li>- <b>Bolton-Caledon (CW)</b>—38.0%</li> <li>- <b>Brampton (CW)</b>—37.5%</li> <li>- <b>Scarborough South (CE)</b>—36.2%</li> </ul>

- Residents of the following sub-regions had the eight lowest and highest number of separations where the separation occurred at a different LHIN (ranked out of 76 sub-regions):

Lowest Outflow	Highest Outflow
<ul style="list-style-type: none"> <li>- <b>South Etobicoke (MH)</b>—3,062</li> <li>- <b>Halton Hills (MH)</b>—2,943</li> <li>- <b>Northern (NW)</b>—2,883</li> <li>- <b>District of Thunder Bay (NW)</b>—2,268</li> <li>- <b>District of Rainy River (NW)</b>—2,266</li> <li>- <b>Rural Hastings (SE)</b>—2,193</li> <li>- <b>Bolton-Caledon (CW)</b>—1,370</li> <li>- <b>James and Hudson Bay Coasts (NE)</b>—912</li> </ul>	<ul style="list-style-type: none"> <li>- <b>Hamilton (HNHB)</b>—43,887</li> <li>- <b>London Middlesex (SW)</b>—33,789</li> <li>- <b>Niagara (HNHB)</b>—32,090</li> <li>- <b>Central Ottawa (Ch)</b>—29,711</li> <li>- <b>Kitchener-Waterloo-Wellesley-Wilmot-Woolwich (WW)</b>—22,825</li> <li>- <b>Sudbury-Manitoulin-Parry Sound (NE)</b>—21,667</li> <li>- <b>Mid-West Toronto (TC)</b>—19,239</li> <li>- <b>Eastern Champlain (Ch)</b>—18,651</li> </ul>

## Post-Acute Care

### Inpatient Rehabilitation Utilization

This chapter is reflective of inpatient rehabilitation information. Information is reflective of data for province, 14 LHINs and 76 sub-regions. The information available is inclusive of data elements that provide admissions, discharges, active cases, total days, mean length of stay and admission rates available for reporting from fiscal year 2013/14 to 2016/17.

For the majority of information included in this chapter, the data source for inpatient rehabilitation data is the National Rehabilitation Reporting System (NRS). The Ministry of Finance and the Ministry of Health and Long-Term Care provide population estimates.

Detailed methodology is available in the accompanying excel workbooks.

#### Notes:

Additional analysis/information for each section is provided in the accompanying Excel workbooks:

- 5.4 Inpatient Rehab (2018)
  - *Admission*
  - *Active Cases*
  - *Discharges*
  - *Total Days*
  - *Mean Length of Stay*
  - *Admission Rate*
  - *Outflow and inflow of admissions*

**Prepared July 2018**

**Excel workbooks provided by:** Health Analytics Branch, Ministry of Health and Long Term Care  
**Analysis & interpretation prepared by:** *Steve White, South West LHIN*

### Adult Inpatient Rehabilitation

The National Rehabilitation Reporting System (NRS) includes information on utilization of adult inpatient units that provide physical and cognitive rehabilitation services. This analysis summarizes admissions recorded in the NRS. There are two rehabilitation institution types in Ontario. Special rehabilitation units provide specialized services for specific patient populations (traumatic brain injury, traumatic spinal cord injury, burns, etc.). These units provide care for the residents of a broader region of the province and therefore, are not located in all LHINs. General rehabilitation units are located in all LHINs and offer multiple types of care with relatively lower treatment complexity than is provided in special rehabilitation units.<sup>4</sup>

---

<sup>4</sup>Ontario Ministry of Health and Long-Term Care. Utilization of Adult Inpatient Rehabilitation Services in Ontario Hospitals: 2003/04-2007/08. [Online] Available from: URL [http://intra.moh.gov.on.ca/MOHLTC\\_Intranets/HSIMI/Branches/HealthAnalytics/AnalyticReports.html](http://intra.moh.gov.on.ca/MOHLTC_Intranets/HSIMI/Branches/HealthAnalytics/AnalyticReports.html)

### Rehabilitation Admissions

- The number of total rehabilitation admissions at the hospitals in the province, including both general admissions and special admissions, was 33,135 in FY 16/17, an increase of 6.4% from FY 13/14.
  - The number of general rehabilitation admissions was 28,691 in FY 16/17, an increase of 5.4% from FY 13/14.
  - The number of special rehabilitation admissions was 4,444 in FY 16/17, an increase of 13.3% from FY 13/14.
- The number of total rehabilitation admissions of Ontario residents was 33,016 in FY 16/17, an increase of 6.5% from FY 13/14.

### Active Cases and Discharges

- In FY 16/17, the number of active cases was 43,329 while the number of discharges was 33,133.

### Inpatient Days

- The number of total inpatient days was 839,228 in FY 16/17; the mean length of stay was 25.3 days.

### Admission Rate

- The number of admissions per 100,000 adults (age 18+) was 292.5 in FY 16/17, an increase of 2.3% from FY 13/14.
  - Age group 18-44 years had the lowest admission rate, 30.4 per 100,000 population
  - Age group 80+ years had the highest admission rate, 2,311.8 per 100,000 population

### Active Case Rate

- The number of active cases per 1,000 population age 18+ was 382.3

### Discharge Rate

- The number of discharges per 1,000 population age 18+ was 292.5

### Leading Rehabilitation Group

- The 5 leading rehabilitation groups that contributed to the total admissions in FY 16/17 were:
  - Other disabilities accounted for 8,122 admissions or 24.6% of the total admissions
  - Stroke accounted for 5,710 admissions or 17.3% of the total admissions
  - Fracture of lower extremity accounted for 5,571 admissions or 16.9 % of the total admissions
  - Replacement of lower extremity accounted for 3,038 admissions or 9.2% of the total admissions
  - Other orthopaedic accounted for 1,714 admissions or 5.2% of the total admissions

### Inflow

- Inflow refers to a LHIN's hospitals providing services to residents of another LHIN.
- 4 highest LHINs:
  - 1<sup>st</sup> – **Toronto Central**
  - 2<sup>nd</sup> – **Mississauga Halton**
  - 3<sup>rd</sup> – **Central**
  - 4<sup>th</sup> – **Central West**
- 4 lowest LHINs:
  - 1<sup>st</sup> – **Erie St. Clair**
  - 2<sup>nd</sup> – **North West**
  - 3<sup>rd</sup> – **North East**
  - 4<sup>th</sup> – **South East**



## LHIN and Sub-Region

### Rehabilitation Admission Rate per 100,000 Population in FY16/17

- 4 highest LHINs:
  - 1<sup>st</sup> – **Erie St. Clair** LHIN
  - 2<sup>nd</sup> – **Central East** LHIN
  - 3<sup>rd</sup> – **Toronto Central** LHIN
  - 4<sup>th</sup> – **Champlain** LHIN
- 4 lowest LHINs:
  - 1<sup>st</sup> – **Waterloo Wellington** LHIN
  - 2<sup>nd</sup> – **North Simcoe Muskoka** LHIN
  - 3<sup>rd</sup> – **Central West** LHIN
  - 4<sup>th</sup> – **North East** LHIN
- Residents of the following sub-regions had the eight lowest and highest rehabilitation admission rates:

Lowest Rehabilitation Admission Rate	Highest Rehabilitation Admission Rate
<ul style="list-style-type: none"> <li>- 1<sup>st</sup> - <b>District of Kenora</b></li> <li>- 2<sup>nd</sup> – <b>James and Hudson Bay Coasts</b></li> <li>- 3<sup>rd</sup> - <b>Dufferin</b></li> <li>- 4<sup>th</sup> - <b>Milton</b></li> <li>- 5<sup>th</sup> - <b>Muskoka</b></li> <li>- 6<sup>th</sup> - <b>Niagara North West</b></li> <li>- 7<sup>th</sup> - <b>Haldimand Norfolk</b></li> <li>- 8<sup>th</sup> - <b>Barrie and Area</b></li> </ul>	<ul style="list-style-type: none"> <li>- 1<sup>st</sup> – <b>Northumberland County</b></li> <li>- 2<sup>nd</sup> – <b>Chatham City Centre</b></li> <li>- 3<sup>rd</sup> – <b>Lambton</b></li> <li>- 4<sup>th</sup> - <b>Essex South Shore</b></li> <li>- 5<sup>th</sup> - <b>Rural Kent</b></li> <li>- 6<sup>th</sup> - <b>Haliburton County and City Of Kawartha Lakes</b></li> <li>- 7<sup>th</sup> - <b>Peterborough City and County</b></li> <li>- 8<sup>th</sup> - <b>South Etobicoke</b></li> </ul>

## Mean Length of Stay

- 4 highest LHINs:
  - 1<sup>st</sup> – **North West** LHIN
  - 2<sup>nd</sup> – **North East** LHIN
  - 3<sup>rd</sup> – **South East** LHIN
  - 4<sup>th</sup> – **Central West** LHIN
- 4 lowest LHINs:
  - 1<sup>st</sup> – **Champlain** LHIN
  - 2<sup>nd</sup> – **North Simcoe Muskoka** LHIN
  - 3<sup>rd</sup> – **Central East** LHIN
  - 4<sup>th</sup> – **Erie St. Clair** LHIN
- Residents of the following sub-regions had the eight lowest and highest mean lengths of stay:

Lowest Rehabilitation Mean Length of Stay	Highest Rehabilitation Mean Length of Stay
<ul style="list-style-type: none"> <li>- 1<sup>st</sup> - <b>Lambton</b></li> <li>- 2<sup>nd</sup> - <b>Eastern Ottawa</b></li> <li>- 3<sup>rd</sup> - <b>North Simcoe</b></li> <li>- 4<sup>th</sup> - <b>Haliburton County and City Of Kawartha Lakes</b></li> <li>- 5<sup>th</sup> - <b>Elgin</b></li> <li>- 6<sup>th</sup> - <b>Cambridge-North Dumfries</b></li> <li>- 7<sup>th</sup> - <b>Western Ottawa</b></li> <li>- 8<sup>th</sup> - <b>Rural Kent</b></li> </ul>	<ul style="list-style-type: none"> <li>- 1<sup>st</sup> - <b>District of Rainy River</b></li> <li>- 2<sup>nd</sup> - <b>District of Thunder Bay</b></li> <li>- 3<sup>rd</sup> - <b>District of Kenora</b></li> <li>- 4<sup>th</sup> - <b>Algoma</b></li> <li>- 5<sup>th</sup> - <b>Quinte</b></li> <li>- 6<sup>th</sup> - <b>Cochrane</b></li> <li>- 7<sup>th</sup> - <b>City of Thunder Bay</b></li> <li>- 8<sup>th</sup> – <b>Brant</b></li> </ul>

Rehab Admissions, Active Cases, Discharges and Days	Ontario	% Change 2013/14-2016/17	Range across LHINs	Range across sub-region
<b>LHIN of hospital</b>				
General admissions	28,691	5.4%	304-8,478	
Special admissions	4,444	13.3%	229-1,555	
Total admissions	33,135	6.4%	522-10,033	
% Inflow inpatient rehab admissions			1.7%-65.0%	
Active Cases	43,329		836-11,825	
Discharges	33,133		517-10,044	
Total Days (discharged cases only)	839,228		11,853-256,125	
Mean Length of Stay (discharged cases only)	25.3		21.8-32.3	
<b>LHIN of patient</b>				
Total population age 18+	11,287,810	3.9%	187,400-1,524,423	4,869-455,209
Total admissions	33,016	6.5%	539-4,670	6-1,465
Admissions/100,000 population age 18+	292.5	2.3%	187.6-475.4	106.8-834.5
Admissions/100,000 population age 18-44 years	30.4		20.4-55.4	0.0-119.6
Admissions/100,000 population age 45-64 years	150.9		114.0-234.7	60.0-310.0
Admissions/100,000 population age 65-79 years	689.3		439.3-968.7	217.2-1287.9
Admissions/100,000 population age 80+ years	2,311.8		1,120.5-3,642.6	465.6-6,128.8
% Outflow inpatient rehabilitation admissions			0.7%-69.1%	
Active cases per 1,000 population age 18+	382.3		258.3-726.0	147.9-1005.8
Discharges per 1,000 population age 18+	292.5		187.2-475.6	101.3-826.6
Mean Length of Stay (discharged cases only)	25.3		22.9-32.7	20.0-42.2

Rehab Admissions, by Leading Rehabilitation Groups	Ontario	% of Total Rehab Admission
<b>LHIN of Patient</b>		
18-Other disabilities	8,122	24.6%
01-Stroke	5,710	17.3%
10-Fracture of lower extremity	5,571	16.9%
11-Replacement of lower extremity	3,038	9.2%
12-Other orthopaedic	1,714	5.2%
03-Non-traumatic brain injury	1,339	4.1%
13-Cardiac	1,207	3.7%
06-Non-traumatic spinal cord injury	1,118	3.4%
07-Amputation	970	2.9%
02-Traumatic brain injury	893	2.7%
16-Major multiple trauma	817	2.5%

## Complex Continuing Care Utilization

Complex continuing care (CCC) is the provision of continuing, medically complex, and specialized services in a hospital setting for individuals of any age who have long-term illnesses or disabilities and who require skilled, multidisciplinary, technology based care that is not available in the patient's home or in LTC homes. Patients often remain in CCC for an extended period of time.

### Notes:

The accompanying workbook contains analysis of complex continuing care utilization (2001/02-2016/17), based on data reported to the Continuing Care Reporting System-CCC (CCRS-CCC). This document includes narrative detail focused on the latest fiscal year of available data (FY2016/17) with all trends comparing FY2013/14 to FY2016/17 (a 3-year time span).

Detailed analysis is provided in the accompanying Excel workbook: **5.6 CCC (2018).xlsx**

The excel workbook contains:

1. Active cases, 2001/02-2016/17; admissions, discharges, total days and mean length of stay, 2009/10-2013/14; RUG weighted cases 2010/11-2013/14, by LHIN of hospital
2. Active cases and crude active case rates, 2001/02-2013/14; admissions, discharges, total days and mean length of stay, 2009/10-2013/14, by LHIN of patient
3. Inflow/outflow of active cases, 2016/17, by LHIN of hospital
4. Notes and details describing how the analysis was done

**Prepared June 2018**

**Excel workbooks provided by:** Health Analytics Branch, Ministry of Health and Long Term Care  
**Analysis & interpretation prepared by:** *Don McGuinness, Sr. Manager Decision Support, South East LHIN*

Complex continuing care (CCC) is the provision of continuing, medically complex, and specialized services in a hospital setting for individuals of any age who have long-term illnesses or disabilities and who require skilled, multidisciplinary, technology based care that is not available in the patient's home or in LTC homes. Patients often remain in CCC for an extended period of time.

Active cases are those that received one or more day of treatment in a CCC unit during the fiscal year.

Discharges are those that occurred in 2016/17 and will include episodes admitted in previous fiscal years. The total days and mean length of stay refer only to episodes that were discharged in 2016/17.

- There were 29,466 active cases, 24,108 admissions and 23,995 discharges from Ontario hospital CCC units in 2016/17.
  - **Toronto Central** and **Hamilton Niagara Haldimand Brant** LHIN hospitals had the largest number of active cases, admissions and discharges in 2016/17.
  - The mean length of stay in Ontario CCC units was 77.3 days. There was substantial variation in the length of stay by LHIN with a range from 33.3 days in **Central** LHIN to 112.6 days in **Toronto Central** LHIN

hospitals. Since patients may remain in CCC for an extended period, the discharge of a single long-stay patient can have a significant impact on the mean length of stay.

- Between 2013/14 and 2016/17, there was little change in active cases (-0.1%), admissions (0.5%), and discharges (-0.2%) with a 2.0% reduction in the total days for Ontario CCC units. However, there was no stable trend across LHIN areas. Hospitals in **Central West** (49% increase) and the **Champlain** LHINs (43% increase) had the greatest growth in active cases, while **North Simcoe Muskoka** (59% decrease) and **Erie St. Clair** LHINs (33% decrease) had the greatest reduction over the period. The mean length of stay in Ontario CCC units declined from 101 days in 2009/10 to 77.3 days in 2016/17 (though this was up from 71.7 days in 2015/16).
- Residents of the **North West** (630/100,000), **Hamilton Niagara Haldimand Brant** (375/100,000) and **South East** LHINs (288/100,000) had the highest CCC active case rates in 2016/17. Residents of **Central West** (70.7/100,000), **North Simcoe Muskoka** (87.6/100,000), and **Mississauga Halton** LHINs (149/100,000) had the lowest active case rates. The active case rate for **Central West** and **North Simcoe Muskoka** LHINs were substantially lower than the rates for other LHINs.
- The mean length of stay ranged from 51 days for **Waterloo Wellington** LHIN residents to 121 days for **Toronto Central** LHIN residents.

### Complex Continuing Care utilization, 2016/17

Local Health Integration Network	Active Cases			Admissions		Discharges		Total	Mean
	#	Rate/ 100,000 Population	% Inflow	#	Rate/ 100,000 Population	#	Rate/ 100,000 Population	Days	LOS
<b>LHIN of Hospital</b>									
Erie St. Clair	1,040		0.7%	844		853		73,896	86.6
South West	1,795		7.7%	1,468		1,488		117,587	79.0
Waterloo Wellington	1,379		5.7%	1,172		1,165		57,014	48.9
HNHB	5,519		2.4%	4,733		4,688		248,466	53.0
Central West	386		8.8%	342		348		18,213	52.3
Mississauga Halton	1,455		9.5%	1,196		1,180		126,892	107.5
Toronto Central	7,447		50.8%	5,790		5,809		653,845	112.6
Central	1,377		8.9%	1,256		1,260		42,012	33.3
Central East	1,785		2.4%	1,494		1,504		83,931	55.8
South East	1,420		1.8%	1,152		1,123		59,515	53.0
Champlain	2,778		6.1%	2,220		2,206		189,615	86.0
North Simcoe Muskoka	343		4.1%	270		264		10,292	39.0
North East	1,257		1.1%	930		907		95,061	104.8
North West	1,485		0.6%	1,241		1,200		78,888	65.7
Ontario	29,466			24,108		23,995		1,855,227	77.3
<b>LHIN of Patient</b>									
	% Outflow								
Erie St. Clair	1,061	165.0	2.6%	858	133.5	872	135.6	77,829	89.3
South West	1,709	174.2	3.1%	1,410	143.7	1,424	145.1	91,024	63.9
Waterloo Wellington	1,366	174.5	4.8%	1,159	148.0	1,160	148.1	59,164	51.0
HNHB	5,488	375.7	1.8%	4,715	322.8	4,659	319.0	247,019	53.0
Central West	661	70.7	46.7%	547	58.5	551	58.9	52,748	95.7
Mississauga Halton	1,889	149.6	30.3%	1,518	120.2	1,514	119.9	154,915	102.3
Toronto Central	3,696	287.7	0.9%	2,863	222.9	2,903	226.0	352,036	121.3
Central	2,843	150.1	55.9%	2,386	126.0	2,386	126.0	164,113	68.8
Central East	2,987	184.2	41.6%	2,471	152.4	2,471	152.4	167,499	67.8
South East	1,435	288.2	2.8%	1,161	233.1	1,136	228.1	59,848	52.7
Champlain	2,625	196.6	0.6%	2,119	158.7	2,085	156.2	172,049	82.5
North Simcoe Muskoka	426	87.6	22.8%	339	69.7	329	67.6	19,640	59.7
North East	1,281	227.8	3.0%	951	169.1	923	164.1	95,458	103.4
North West	1,482	630.2	0.4%	1,238	526.5	1,195	508.2	78,565	65.7
Ontario	29,366	210.0		24,022	171.8	23,908	171.0	1,850,599	77.4

## Sub Region: Highest and Lowest active case rates and Mean Length of Stay

### Highest and Lowest Active Case Rates by sub-region of Patient Residence, FY2016/17

LHIN sub-region	LHIN of sub-region	Rate/100,000 residents
-----------------	--------------------	------------------------

#### Sub-Regions with highest active case rates

City of Thunder Bay	North West	998.9
Niagara	HNHB	654.2
District of Thunder Bay	North West	538.6
Lanark, Leeds & Grenville	South East	449.7
Haldimand Norfolk	HNHB	433.2
Huron Perth	South West	427.7
Brant	HNHB	407.4
West Toronto	Toronto Central	382.9

#### Sub-regions with lowest active case rates

Northumberland County	Central East	30.5
Bramalea	Central West	35.3
Brampton	Central West	40.5
District of Kenora	North West	45.4
Barrie and Area	North Simcoe Muskoka	53.8
Couchiching	North Simcoe Muskoka	58.6
North West Mississauga	Mississauga Halton	65.1
Bolton-Caledon	Central West	66.1

## Alternate Level of Care

This chapter is reflective of Alternate Level of Care information. A provincial definition of ALC was created and deployed to all Ontario hospitals in 2009 and in May 2011, the Wait Time Information System (WTIS) was expanded to collect information related to patients designated as requiring an alternate level of care. Information is reflective of data from 131 facilities and 113 sites. The information available is inclusive of data elements that provide wait times, discharge destinations, and volumes of patients waiting to access care, and available for reporting from fiscal year 2013/14 to 2017/18.

For the majority of information included in this chapter, the data source for ALC data is the Wait Time Information System (WTIS-ALC)<sup>5</sup>. Bed Census Summary data, from the Ministry's Daily Bed Census Summary (BCS), is used for calculation of the ALC Rate and the % ALC Days & Acute ALC Days are based on data from the Discharge Abstract Database (DAD).

Indications of N/A refers to Not Applicable and where noted, NV refers to Volume of Cases is <10.

Additional information for each section is provided in the accompanying Excel workbooks:

- ALC IHSP Data\_Prov\_LHIN\_FAC\_SITE\_final v3
  - *ALC Rate*
  - *ALC Throughput Ratio*
  - *Volume (Open & Closed)*
  - *Wait Time (Open & Closed)*
  - *Percentage of Patients Designated ALC within 1, 2, and 3 Days of Admission*
  - *LHIN/Facility/Site – Annual ALC Rate*
- ALC IHSP Data\_Part 3\_Sub-Region by Patient Residential
  - *90<sup>th</sup> Percentile Wait (Open & Closed)*
- 5.1 Acute care (2018)
  - *% ALC Days*
  - *Acute ALC Days*

**Prepared July 2018**

**Excel workbooks provided by:** Health Analytics Branch, Ministry of Health and Long Term Care  
Cancer Care Ontario

**Analysis & interpretation prepared by:** *Alexander Russell, Data Coordinator & Don McGuinness, Sr. Manager, Decision Support, South East LHIN*

---

<sup>5</sup> WTIS includes information reported by 186 healthcare sites (126 facilities) across the province, including acute and post-acute facilities. 27 facilities in 7 LHINs do not participate in WTIS, and therefore data comparing LHINs must be interpreted with caution.

Alternate level of care (ALC) days are those days when a physician (or designated other) has indicated that a patient occupying a hospital bed does not require the intensity of resource/services provided in acute care, but has chosen not to discharge the patient from that bed.

All ALC days are non-value added for the patient—they are wait time, during which the patient is not receiving the most appropriate care. In addition, a patient who is designated ALC is in a riskier environment than necessary (potentially exposed to nosocomial infections, not being activated and socialized).

### Closed ALC Cases

Closed cases refers to patients who have been discharged from the hospital beds that they were occupying and who were designated ALC at the time of discharge. Measures of closed cases focus on patients whose care needs have been met.

### Acute ALC Days

Acute ALC days is a count of the number of ALC days that were experienced by patients who were discharged from acute inpatient beds. It is the numerator of the % ALC Days measure.

- Acute ALC Days increased by 143,091 days from FY 13/14 to FY 16/17

### % ALC Days (Acute Inpatient)

The % ALC Days measure measures the number of ALC days as a proportion of the total length of stay for patients discharged from acute inpatient beds. All ALC days represent wait time for the designated patient. Although % ALC days is an effective measure of non-value added hospital time to a segment of the population and provides a window into the experience of transitions for those patients, it excludes the experience of ALC-designated patients discharged from post-acute beds—these patients account for a substantial portion of all ALC days accumulated in Ontario.

- Provincial % ALC Days increased from 14.0% in FY 13/14 to 15.6% in FY 16/17.
  - Overall, hospitals in the **North West** LHIN had the **highest** % ALC days in the province (26.3%).
  - Overall, hospitals in the **Central West** LHIN had the **lowest** % ALC days in the province (8.1%).

### Volume of Closed Cases

- The volume of closed cases for all inpatient services increased by 1% from 60,597 in FY 13/14 to 61,122 in FY 17/18.
  - Home with CCAC Services – number of closed cases decreased by 17% from 12,961 in FY 13/14 to 10,764 in FY 17/18.
  - Long-term Care – number of closed cases decreased by 12% from 9,321 in FY 13/14 to 8,249 in FY 17/18.
  - Rehabilitation - number of closed cases increased by 9% from 15,208 in FY 13/14 to 16,581 in FY 17/18.

### 90<sup>th</sup> Percentile Wait of Closed Cases

- This measure evaluates how long 9 out of 10 patients waited before they were discharged to a more appropriate care setting.
- The wait time for closed cases (all inpatients services and all discharge destinations) increased from 46 days in FY13/14 to 51 days in FY17/18.
  - Home with CCAC Services – wait time increased by 7% from 29 days at the end of FY 13/14 to 31 days at the end of FY 17/18.



- Long-term Care – wait time increased by 25% from 189 days at the end of FY 13/14 to 236 days at the end of FY 17/18.
- Rehabilitation - wait time decreased by 6% from 16 days at the end of FY 13/14 to 15 days at the end of FY 17/18.

#### 90<sup>th</sup> Percentile Wait of Closed Cases by Sub-Region of Patient Residence [out of 75 reporting]\*

- 8 sub-regions with the highest wait times:
  - **Highest** - District of Thunder Bay
  - 2<sup>nd</sup> highest - Peterborough City and County
  - 3<sup>rd</sup> highest - Kingston
  - 4<sup>th</sup> highest - Burlington
  - 5<sup>th</sup> highest - District of Rainy River
  - 6<sup>th</sup> highest - Durham West
  - 7<sup>th</sup> highest - Cochrane
  - 8<sup>th</sup> highest - Haldimand Norfolk
- 8 sub-regions with the lowest wait times:
  - 4<sup>th</sup> lowest - Guelph-Puslinch
  - Tied 3<sup>rd</sup> lowest - Huron Perth
  - Tied 3<sup>rd</sup> lowest - Brampton
  - Tied 3<sup>rd</sup> lowest - North Simcoe
  - Tied 2<sup>nd</sup> lowest - Kitchener-Waterloo-Wilmot-Wellesley-Woolwich
  - Tied 2<sup>nd</sup> lowest - Bramalea
  - Tied 2<sup>nd</sup> lowest - Western York Region
  - **Lowest** - Cambridge-North Dumfries
- \*Note: Hospitals reported no discharges in 2017/18 of ALC-designated patients who were residents of James and Hudson Bay Coasts

#### Open ALC Cases

Open cases refers to ALC-designated patients who have not yet been discharged from a hospital inpatient bed. Measures of open cases focus on patients whose care needs have not yet been met.

#### Volume of Open Cases

- Open cases refers to those patients who have been designated ALC and are still occupying hospital inpatient beds.
- The number of ALC waitlist entries open across all inpatient bed types increased by 8% from 3,945 at the end of FY 13/14 to 4,256 at the end of FY 17/18.
  - Home with CCAC Services – the number of open cases decreased by 18% from 642 at the end of FY 13/14 to 525 at the end of FY 17/18.
  - Long-term Care – the number of open cases increased by 6% from 1,671 at the end of FY 13/14 to 1,776 at the end of FY 17/18.
  - Supervised or Assisted Living – the number of open cases increased by 41% from 401 at the end of FY 13/14 to 567 at the end of FY 17/18.

#### 90<sup>th</sup> Percentile Wait of Open Cases

- This measure evaluates how long 9 out of 10 patients have been waiting, to date, to be discharged to a more appropriate care setting.
- The wait time for open cases (all inpatients services and all discharge destinations) increased from 353 days at the end of FY 13/14 to 361 days at the end of FY 17/18. Ontarians still awaiting discharge had waited 310 days longer than patients that were discharged in 17/18.
  - Home with CCAC Services – wait time increased by 68% from 65 days at the end of FY 13/14 to 109 days at the end of FY 17/18.
  - Long-term Care – wait time increased by 1% from 495 days at the end of FY 13/14 to 501 days at the end of FY 17/18.

- Supervised or Assisted Living - wait time decreased by 37% from 803 days at the end of FY 13/14 to 506 days at the end of FY 17/18.

#### 90<sup>th</sup> Percentile Wait of Open Cases by Sub-Region of Patient Residence [out of 71 reporting]\*

- 8 sub-regions with the highest wait times:
  - **Highest** - District of Rainy River
  - 2<sup>nd</sup> highest - Mid-West Toronto
  - 3<sup>rd</sup> highest - District of Thunder Bay
  - 4<sup>th</sup> highest - North West Mississauga
  - 5<sup>th</sup> highest - Kingston
  - 6<sup>th</sup> highest - West Toronto
  - 7<sup>th</sup> highest - North Toronto
  - 8<sup>th</sup> highest - Scarborough North
- 8 sub-regions with the lowest wait times:
  - 8<sup>th</sup> lowest - South Georgian Bay
  - 7<sup>th</sup> lowest - Tecumseh Lakeshore Amherstburg LaSalle
  - 6<sup>th</sup> lowest - Western York Region
  - 5<sup>th</sup> lowest - Niagara
  - 4<sup>th</sup> lowest - Couchiching
  - 3<sup>rd</sup> lowest - Brampton
  - 2<sup>nd</sup> lowest - Barrie and Area
  - **Lowest** - Huron Perth

\*Note: At the end of 2017/18, there were no residents of the following sub-regions designated ALC in Ontario hospitals:

- Dufferin
- Bolton-Caledon
- Halton Hills
- Rural Hastings
- James and Hudson Bay Coasts

#### Hospital Processes and Capacity

The following ALC measures focus on hospital actions that drive ALC, and on the impact of ALC on hospital capacity.

#### ALC Throughput Ratio

The ALC throughput ratio measures the relative rate at which a hospital discharges ALC-designated patients versus the rate at which the same hospital designates patients ALC. An ALC throughput ratio less than 1 indicates there were more newly added ALC cases than discharged ALC cases at a facility, whereas an ALC throughput ratio greater than 1 indicates there were more discharged ALC cases than newly added ALC cases. A higher ALC throughput ratio, particularly a rate higher than 1, is desirable.

- The throughput ratio in Ontario decreased from 1.00 in FY 13/14 to 0.98 in FY 17/18
  - In FY 17/18, Hamilton- McMaster site (**Hamilton Niagara Haldimand Brant** LHIN) had the **highest** ALC throughput ratio (4.33).
  - Overall, hospitals in the **Mississauga Halton** and **Erie St. Clair** LHINs had the **highest** ALC throughput ratio (1.0).
  - Overall, hospitals in the **North Simcoe Muskoka** LHIN had the **lowest** ALC throughput ratio (0.94).

#### Percentage of Patients Designated ALC within 1, 2 & 3 Days of Admission

Most hospital admissions have care pathways including acute stays of more than 2 days. Those with expected acute stays of 2 days or less (elective surgery, childbirth, etc.) generally do not result in ALC designation. When a patient is designated ALC within 2 days of admission to an inpatient bed, it is a potential measure of avoidable admission.

- The percentage of patients that have been designated as requiring an alternate level of care within one, two and three days of admission to hospital decreased over the last five years from FY 13/14 to FY 17/18.
  - Across the province, 12 hospital sites across the province had ALC designation rates of 0% within 1 day of admission, 11 within 2 days of admission, and 10 within 3 days of admission.
  - In FY 17/18, North of Superior Healthcare Group-McCausland site (**North West** LHIN) had the **highest** rate of ALC designation within 1 day of admission (58.3%).
  - In FY 17/18, Bluewater -Petrolia Site (**Erie St. Clair** LHIN) had the **highest** rate of ALC designation within 2 days of admission (58.4%), and within 3 days of admission (59.6%).
  - Overall, hospitals in the **North West** LHIN had the **highest** rate of ALC designation within 1 day of admission (12.1%), 2 days of admission (19.2%), and 3 days of admission (27.8%).
  - Overall, hospitals in the **Central West** LHIN had the **lowest** rate of ALC designation within 1 day of admission (3.1%), 2 days of admission (5.6%), and 3 days of admission (10.6%).

### ALC Rate (All Inpatient Services)

The ALC rate is the proportion of all inpatient beds occupied by patients designated ALC in a given period. It is a measure of hospital capacity—a lower percentage is better in that it reflects less hospital capacity that is unavailable due to ALC.

- The annual ALC rate for all inpatient beds in Ontario increased from 13.8% in FY 13/14 to 15.4% in FY 17/18.
  - Across the province, 4 hospital sites across the province had ALC rates of 0%.
  - In FY 17/18, Riverside -Rainy River site (**North West** LHIN) had the **highest** ALC rate in the province (79.1%).
  - Overall, hospitals in the **North West** LHIN had the **highest** ALC rate in the province (33.9%).
  - Overall, hospitals in the **Central West** LHIN had the **lowest** ALC rate in the province (8.1%).

### Acute I/P Services

- The provincial rate increased (worsened) over the past 5 fiscal years (13.6% FY 13/14; 16.2% FY 17/18).

### Post-Acute I/P Services

- Ontario rate decreased over the past 5 fiscal years (14.2% FY 13/14; 14.1% FY 17/18).
  - CCC Inpatient Services – Rate decreased from 22.1% in FY 13/14 to 21.9% in FY 17/18.
  - Mental Health Inpatient Services – Rate decreased from 10.2% in FY 13/14 to 9.6% in FY 17/18.
  - Rehab Inpatient Services - Rate increased from 5.4% in FY 13/14 to 7.0% in FY 17/18.

### Hospital Capacity—Facility/Site – Annual ALC Rate

- In FY 17/18, **North West** LHIN – Geraldton District Hospital had the **highest** ALC Rate across the province at the facility level (73.7%).
- In FY 17/18, **North West** LHIN – Riverside – Rainy River had the **highest** site level rate (79.1%).
- **North West** LHIN – Riverside – Rainy River - had the **greatest increase** in ALC Rate since FY 13/14 (+64.8%)
- **North West** LHIN – St. Joseph’s Care Group - Lakehead had the **greatest decrease** in ALC Rate since FY 13/14 (-49.4%).

Ontario							
Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	LHIN Range	Change FY 13/14 to FY 17/18
Acute ALC Days (closed cases)	880,770	917,535	920,707	1,023,861	NV	20,270-133,224	143,091
% ALC Days (Acute Inpatient closed cases)	14.0%	14.4%	14.5%	15.6%	NV	8.1 - 26.3%	1.6%
Volume of Closed Cases (C/C)	60,597	63,496	61,707	61,579	61,122	1,683 - 9,102	525
Volume of C/C - Home with CCAC Services	12,961	13,378	11,741	11,291	10,764	153 - 1,530	(2,197)
Volume of C/C - Long Term Care	9,321	8,864	8,311	8,197	8,249	393 - 1,465	(1,072)
Volume of C/C – Rehabilitation	15,208	15,938	16,078	16,356	16,581	392 - 4,637	1,373
90 <sup>th</sup> Percentile Wait of Closed Cases	46	43	44	49	51	27 - 87	5
90 <sup>th</sup> Percentile Wait of Closed Cases - Home with CCAC Services	29	29	30	29	31	38 - 400	2
90 <sup>th</sup> Percentile Wait of Closed Cases - Long Term Care	189	188	192	225	236	302 - 530	47
90 <sup>th</sup> Percentile Wait of Closed Cases – Rehabilitation	16	15	14	15	15	12 - 126	(1)
Cumulative Wait of Closed Cases (C/C)	1,417,891	1,430,349	1,421,299	1,505,182	1,577,488	22,543- 236,712	159,597
Mean Wait of C/C - Home with CCAC Services	13	14	15	14	15	13.1 - 120	2
Mean Wait of C/C - Long Term Care	79	80	84	92	98	99.3 - 299.3	19
Mean Wait of C/C- Rehabilitation	8	8	7	7	7	5.9 - 10	(1)
Median Wait of C/C - Home with CCAC Services	7	7	7	7	7	4 - 9	0
Median Wait of C/C - Long Term Care	37	37	40	43	45	26 - 61	8
Median Wait of C/C – Rehabilitation	5	5	4	4	4	3 - 6	(1)
Total Wait of C/C - Home with CCAC Services	170,728	181,330	176,403	160,984	159,360	1,819 - 29,710	(11,368)
Total Wait of C/C - Long Term Care	734,126	711,928	699,536	754,368	810,294	28,585 - 154,953	76,168
Total Wait of C/C – Rehabilitation	119,946	120,172	112,913	118,144	119,584	3,551 - 29,113	(362)

Ontario							
Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	LHIN Range	Change FY 13/14 to FY 17/18
Volume of Open Cases (O/C) on the last day of the year	3,945	3,939	4,096	4,132	4,256	80 - 615	311
Volume of O/C - Home with CCAC Services	642	606	508	432	525	8 - 105	(117)
Volume of O/C - Long Term Care	1,671	1,647	1,858	2,011	1,776	20 - 345	105
Volume of O/C - Supervised or Assisted Living	401	465	466	472	567	12 - 130	166
90 <sup>th</sup> Percentile Wait of Open Cases	353	327	320	359	361	124 - 688	8
90 <sup>th</sup> Percentile Wait of Open Cases - Home with CCAC Services	65	83	127	119	109	46 - 400	44
90 <sup>th</sup> Percentile Wait of Open Cases - Long Term Care	495	461	406	464	501	247 - 802	6
90 <sup>th</sup> Percentile Wait of Open Cases - Supervised or Assisted Living	803	728	652	640	506	122 - 2,195	(297)
Cumulative Wait of Open Cases (O/C)	491,577	485,983	511,659	548,129	559,206	3,826 - 131,603	67,629
Mean Wait of O/C - Home with CCAC Services	28	41	46	48	47	13.1 - 120	19
Mean Wait of O/C - Long Term Care	193	187	174	184	195	99.3 - 299.3	2
Mean Wait of O/C - Supervised or Assisted Living	255	212	203	212	180	46.7 - 554.3	(75)
Median Wait of O/C - Home with CCAC Services	11	15	11	11	18	4 - 33	7
Median Wait of O/C - Long Term Care	83	77	85	92	103	54 - 178	20
Median Wait of O/C - Supervised or Assisted Living	55	41	36	38	37	17 - 347	(18)
Total Wait of O/C - Home with CCAC Services	17,984	24,920	23,427	20,561	24,685	46 - 1,667	6,701
Total Wait of O/C - Long Term Care	321,975	307,294	323,787	370,327	346,012	247 - 6,475	24,037
Total Wait of O/C - Supervised or Assisted Living	102,292	98,801	94,780	100,135	102,052	122 - 2,195	(240)
Throughput Ratio (discharged case/newly added cases)	1.00	1.00	1.00	1.00	0.98	0.94 - 1.00	(0.02)
% of Cases Designated ALC Within 1 Day	7.8%	7.1%	7.0%	6.7%	6.7%	3.1 - 12.1%	(-1.1%)
% of Cases Designated ALC Within 2 Day	12.1%	11.6%	11.7%	11.4%	11.1%	5.6 - 19.2%	(-1.0%)
% of Cases Designated ALC Within 3 Day	17.7%	17.5%	17.8%	17.5%	17.0%	10.6 - 27.8%	(-0.7%)
ALC Rate - All Inpatient Services	13.8%	13.7%	13.9%	14.8%	15.4%	8.1 - 33.9%	1.6%
ALC Rate - Acute Inpatient Services	13.6%	14.1%	14.2%	15.3%	16.2%	10.2 - 32.2%	2.6%
ALC Rate - Post-Acute Inpatient Services	14.2%	13.1%	13.5%	14.0%	14.1%	0.3 - 36.0%	(-0.0%)
ALC Rate - CCC Inpatient Services	22.1%	20.3%	20.4%	21.7%	21.9%	1.2 - 51.4%	(-0.2%)
ALC Rate - Rehab Inpatient Services	5.4%	5.4%	6.3%	7.2%	7.0%	0.2 - 18.8%	1.6%
ALC Rate - Mental Health Inpatient Services	10.2%	9.5%	10.0%	9.5%	9.6%	0 - 19.8%	(-0.6%)

\*Wait time is calculated in days

\*\*Provincial summary does not include all wait time subcategories, because some subcategories may only apply to a small number of LHINs or only be available at Facility/Site level

\*\*\*Ranges apply to FY 2017/18 where applicable

## Long-Term Care

### **Background/Overview:**

This chapter and the accompanying workbook contains analysis of long-term care home data at the LHIN and sub-region levels. The LHIN and sub-region analyses are divided into three parts: long-term care home bed supply; waitlist and placement; and selected characteristics of long-term care home residents.

### **Notes:**

#### **LHIN and sub-region long-term care homes**

- LHIN results are not the sum of the sub-regions for the **South West** and **HNHB** LHINs. Both LHINs agreed that Norfolk County, which is shared between these two LHINs, was to be wholly assigned to **HNHB** when the sub-regions were first defined. As a result, one long-term care home (Caressant Care Courtland) is assigned to the **South West** LHIN for LHIN analysis and, for sub-region analysis, assigned to **Haldimand Norfolk** in the **HNHB** LHIN.

#### **Data periods**

- Supply and demand data for long-term care homes is from February/March of 2018. CCRS Assessment data from the latest full assessment (within the fiscal year) is used to describe the characteristics of residents in LTC as of March 31 of each fiscal year.

#### **Rates**

- All rates are for the population age 75+. Sub-region rates use the most currently available, population estimates (2014-2016) developed by HAIB. For consistency, LHIN rates are also based on 2014-2016 Ministry of Finance population estimates.

#### **Long-term care home bed supply**

- Long stay beds, including interim; Short stay respite & convalescent care beds; and total beds in operation were tabulated by long-term care home. Each home was assigned to a LHIN and sub-region using the MOHLTC long-term care home 2017 GIS point file (HAIB 2017), updated where necessary to assign new home data.

#### **Long-stay demand**

- Total demand is the sum of long-term residents and persons on the waitlist for homes in each area. In the Formatted Table, the waitlist is for the LHIN or sub-region of long-term care home.

#### **Modernized and Legacy Patient Profile Database**

- "Historical waitlist and time to placement data in this spreadsheet is based on the Long-Term Care System Reports. In this report, waitlist data from 2015/16 onward is based on the Modernized CPRO, and data from previous periods uses the legacy CPRO. The Modernized CPRO replaces the Legacy CPRO as the authoritative data source for Long Term Care Home bed demand information, patient placement and waitlist data.

- Although differences between the two systems are small, caution should be used in interpreting trends over time for waitlist and time to placement data. Further detail on the differences between the Modernized and legacy data are published regularly in the monthly LTCH System Reports."

Detailed analysis is provided in the accompanying Excel workbook:  
**LTC (2018).xlsx**

The excel workbook contains:

1. *A LHIN Summary tab providing:*
  - *LTC Bed Supply: number of beds in operation by type and beds in operation per 1,000 population age 75+*
  - *LTC Demand: number and rate of LTC Residents; LTC Beds waitlist and waitlist per 1,000 residents age 75+; total LTC demand (residents + waitlist); LTC demand per 1,000 population age 75+*
  - *Time to placement: Median time to LTC Placement in Days; overall, from Acute Care only, and from Community*
  - *Resident Characteristics: Number of active residents and admissions, mean/median age of residents; mean/median length of stay in LTC, number and proportion of residents by: level of ADL assistance required, level of aggressive behaviour, degree of cognitive impairment, and with dementia.*
  - *The information presented refers to the LHIN of the LTC home (unless stated otherwise).*
2. *The Sub-region summary tab provides:*
  - *LTC Bed Supply: number of beds in operation by type and beds in operation per 1,000 population age 75+*
  - *LTC Demand: number and rate of LTC Residents; LTC Beds waitlist and waitlist per 1,000 residents age 75+; total LTC demand (residents + waitlist); LTC demand per 1,000 population age 75+*
  - *Time to placement: Median time to LTC Placement in Days; overall, from Acute Care only, and from Community*
  - *Resident Characteristics: Number of active residents and admissions, mean/median age of residents; mean/median length of stay in LTC, number and proportion of residents by: level of ADL assistance required, level of aggressive behaviour, degree of cognitive impairment, and with dementia.*
  - *The information is based on the sub-region location of the LTC home (unless stated otherwise).*

**Prepared June 2018**

**Excel workbooks provided by:** Health Analytics Branch, Ministry of Health and Long Term Care  
**Analysis & interpretation prepared by:** Neman Khokhar, North Simcoe Muskoka LHIN

### Data Notes

- LTC supply is the number of long-term care (LTC) home beds occupied or available for occupancy (adjusted for bed openings and closings) including long stay, short stay (respite and convalescent care), and interim beds as of March 31, 2014.
- The LTC waitlist is the total number of patients on the waiting list for a long stay bed during the fiscal year, excluding those who were already occupying a permanent or interim bed and awaiting a transfer.
- LTC demand includes LTC residents plus patients on the wait list.
- The Time to Placement (TTP) is the median number of days from application to placement for those patients placed in a long-stay bed in the fiscal year. These values exclude patients who were transferred from another LTC home.

### Long-Term Care (LTC) Bed Supply

- 626 LTC homes were licensed and approved to operate in Ontario.
- As of February 2018, there were a total of 78,858 LTC beds in operation in Ontario.
  - 98% of LTC beds (77,478) were designated as Long-Stay Beds or Interim beds with the remainder (1,380 beds) designated as Short-stay, Respite or Convalescent care beds.
  - In 2017/18, **Hamilton Niagara Haldimand Brant** LHIN had the **highest** number of LTC beds (10,376) with **North West** LHIN having the **lowest** (1,841).

### Long-Term Care Waitlist & Placements

- Of the 22,375 patients placed in Long-Term Care Homes in FY 2017/18, approximately 74% were from the community while only 18% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- The median time to placement in long-term care, as of March 2018, was 163 days (5 months).
  - Half of community patients waited less than 163 days for a placement in a LTC home while half of hospital patients waited less than 94 days for placement.
  - Median time to placement in long-term care varied between LHINs, with patients in **Central East** LHIN waiting almost 10 months for placement (302 days) compared to patients in **Erie St. Clair** LHIN waiting around 2 months (68 days).
- As of March 2018, there were 32,773 patients on the waitlist waiting for placement in a Long-Term Care home in Ontario (not including patients awaiting transfer from one LTC home to another).



### Long-Stay Demand

- As of March 2018, there were 75,979 long-stay residents occupying LTC Homes within Ontario.
- When adjusted for the size of the older population, Ontario had a supply rate of approximately 77 Long-Stay beds per 1,000 people aged 75+.
  - The rate varied at the LHIN level between 57 beds per 1,000 (**Mississauga Halton** LHIN) to 105 beds per 1,000 (**North West** LHIN).
    - When examined at the sub-regional Level, the sub-regions with the lowest and highest rates of LTC beds per 1,000 population aged 75 or older were:

Lowest LTC beds per Population 75+	Highest LTC beds per Population 75+
<ul style="list-style-type: none"><li>- South West Mississauga (<b>MH</b>)</li><li>- Northern (<b>NW</b>)</li><li>- East Mississauga (<b>MH</b>)</li><li>- Eastern York Region (<b>C</b>)</li><li>- Western York Region (<b>C</b>)</li><li>- North Toronto (<b>TC</b>)</li><li>- Rural Kent (<b>ESC</b>)</li><li>- North York Central (<b>C</b>)</li></ul>	<ul style="list-style-type: none"><li>- Chatham City Center (<b>ESC</b>)</li><li>- District of Rainy River (<b>NW</b>)</li><li>- Rural Hastings (<b>SE</b>)</li><li>- Cochrane (<b>NE</b>)</li><li>- Essex South Shore (<b>ESC</b>)</li><li>- Niagara North West (<b>HNHB</b>)</li><li>- City of Thunder Bay (<b>NW</b>)</li><li>- Scarborough South (<b>CE</b>)</li></ul>

- The **largest** gap between the demand and supply of Long-Term Care Homes was in the **Central East** LHIN where the demand exceeds supply by over 6,500 LTC beds. The **smallest** gap between LTC demand and supply was in **Erie St. Clair** LHIN where demand exceeds supply by approximately 640 LTC beds.

### Selected Characteristics of Long-Term Care Home Residents

- In Ontario, 83% of Residents were over the age of 75 with 56% being over the age of 85.
- In 2016/17, the mean age of residents of LTC Homes in Ontario was 84.
- The mean length of stay for residents of LTC Homes in Ontario was 955 days (about 2.6 years) with half of residents remaining in LTC homes for less than 599 days.
- Nearly 82% of residents needed extensive help with daily activities such as getting out of bed, eating, or toileting; 29% were highly or entirely dependent on staff.
- 82% had some form of cognitive impairment; 28% were severely impaired.
- 46% exhibited some level of aggressive behaviour related to their cognitive impairment or mental health condition and 6% exhibited very severe aggressive behavior.
- 66% of active LTC Residents had been identified as having some form of dementia.

## Long-term care home supply, waitlists and placements

Ontario		
Long-term care bed supply for LTC homes in the LHIN (February 2018)	#	Rate per 1,000 population age 75+
Long-term care homes	626	
Long-stay beds	77,478	77.3
Short-stay, respite & convalescent care beds	1,380	1.4
Total beds in operation	78,858	78.6
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %
<i>By LHIN of long-term care home (patients awaiting placement in a LTC home in the LHIN)</i>		
Long-stay waitlist without transfer patients*	32,773	32.7
Placements**		
From community	16,526	73.9%
From hospital	4,061	18.1%
Total	22,375	
<b>Median time to placement (days)</b>		
From community	163	
From hospital	94	
Total	146	
<i>By LHIN of patient (patients who reside in the LHIN awaiting placement in any LTC home)</i>		
Long-stay waitlist without transfer patients*	30,713	30.6
Placements**		
From community	16,526	73.9%
From hospital	4,061	18.1%
Total	22,098	
<b>Median time to placement (days)</b>		
From community	163	
From hospital	94	
Total	146	
Long-stay demand (February / March 2018) for LTC homes in the LHIN	#	Rate per 1,000 population age 75+
Long-stay residents	75,979	75.8
Long-stay waitlist without transfer patients	32,773	32.7
Total demand	108,752	108.4
Total long-stay supply	77,478	77
Difference between supply and demand	31,178	31

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of category total

Placements from other locations (correctional facilities, homeless, out-of-province) are not shown but are included in the total placement values.

## Long-term care home resident characteristics

Characteristics of long-term care home residents, by LHIN of home (2016/17)	#	Rate or %
<b>Demography, volume and length of stay (LOS)</b>		
Active LTC Residents*	68,546	68.3
Number of admissions*	27,440	27.4
<b>By age group**</b>		
Residents age <65	4,295	6.3%
Residents age 65-74	7,343	10.7%
Residents age 75-84	18,293	26.7%
Residents age 85+	38,615	56.3%
Mean age of residents	84	
Mean age of residents at admission	83	
<b>Length of stay (LOS)</b>		
Mean LOS (days)	955	
Median LOS (days)	599	
<b>Residents by level of ADL assistance required**</b>		
None or limited assistance required	12,299	17.9%
Extensive assistance required	36,502	53.3%
Dependent	19,745	28.8%
<b>Residents by level of aggressive behaviour**</b>		
No signs of aggressive behaviour	36,779	53.7%
Some signs of aggressive behaviour	16,746	24.4%
Moderate to severe aggressive behaviour	10,667	15.6%
Very severe aggressive behaviour	4,339	6.3%
<b>Cognitive impairment categories **</b>		
Relatively intact	12,166	17.7%
Mild impairment	37,100	54.1%
Severe impairment	19,280	28.1%
<b>RUG categories **</b>		
1 Extensive Services	2,735	4.0%
2 Special Rehabilitation	2,680	3.9%
3 Special Care	7,440	10.9%
4 Clinically Complex	15,657	22.8%
5 Impaired Cognition	8,362	12.2%
6 Behavioural Problems	1,061	1.5%
7 Reduced Physical Functions	30,611	44.7%
<b>Residents with Dementia**</b>	<b>45,105</b>	<b>65.8%</b>
* Rate or % column shows the rate per 1,000 population age 75+		
** Rate or % column shows percentage of active LTC residents		



# 1. Erie St. Clair LHIN



## Contents

<b>1. Erie St. Clair LHIN</b>	<b>1</b>
<b>Highlights</b>	<b>1</b>
Erie St. Clair LHIN	1
Residents of Erie St. Clair LHIN Sub-Regions	3
<b>Population Characteristics</b>	<b>9</b>
Population Estimates	9
2016 Census Profile	10
Births and Mortality	17
General Health, Risk Factors, and Prevention	22
Chronic Conditions	24
<b>Human Resources</b>	<b>38</b>
<b>Primary Care</b>	<b>41</b>
Primary Care Enrolment	41
Selected Measures from the Health Care Experience Survey	41
<b>Community Care</b>	<b>43</b>
<b>Mental Health</b>	<b>44</b>
Wait Time for Community Services	44
Mental Health and Substance Abuse Emergency Department Visits	44
Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility	45
<b>Surgery &amp; Diagnostic Imaging</b>	<b>47</b>
Day Surgery and Cardiac Catheterization Utilization	47
Surgical & Diagnostic Imaging Wait Times	48
<b>Oncology and Dialysis</b>	<b>57</b>
<b>Home Care</b>	<b>60</b>
<b>Palliative Care</b>	<b>63</b>
<b>Emergency Department</b>	<b>66</b>
Emergency Department Utilization	66
Emergency Department Performance	71
<b>Acute Care</b>	<b>73</b>
Acute Care Utilization by Residents of the Erie. St. Clair LHIN	73
Acute Care Utilization for Erie. St. Clair LHIN Facilities	74
Acute Care Inflow/Outflow	76
<b>Post-Acute Care</b>	<b>77</b>
Inpatient Rehabilitation Utilization	77
Complex Continuing Care Utilization	80
<b>Alternate Level of Care</b>	<b>81</b>
Closed ALC Cases	82
Open ALC Cases	82
Hospital Processes and Capacity	83
<b>Long-Term Care</b>	<b>85</b>

## Highlights

Comprehensive information about population demographics, health status, health outcomes, chronic conditions, human resources, primary care, health service utilization, and long-term care in the Erie St. Clair LHIN can be found under the content headings of in the remainder of this document, beginning with the socio-demographic profile. This Highlights introduction is intended to provide a guide to areas in which either the Erie St. Clair LHIN or one of its sub-regions is significantly different from the province as a whole. Sub-region comparisons within this section are always to the other 75<sup>1</sup> sub-regions across the province, and LHIN comparisons are always to the other 13 LHINs.

### Erie St. Clair LHIN

#### Population Characteristics

- The epidural rate for vaginal deliveries and for all deliveries were both the 2<sup>nd</sup> highest in the province.
- The Erie St. Clair LHIN had the lowest rate of family doctors as the healthcare provider who caught the baby for hospital births.
- ED usage between FY13/4 and FY16/17 declined the **most** in the Erie St. Clair LHIN.
- The Erie St. Clair LHIN had the **lowest** inflow from other LHINs for inpatient rehabilitation.
- Erie St. Clair hospitals had the **largest** percentage decrease in total days in acute beds (acute days plus ALC days) between 2013/14 and 2016/17.
- The Erie St. Clair LHIN had the **lowest** proportion of acute inflow (residents of other LHINs admitted to acute inpatient beds in the Erie St. Clair LHIN).
- The Erie St. Clair LHIN had the **lowest** proportion of rehabilitation inflow (residents of other LHINs admitted to inpatient rehabilitation beds in the Erie St. Clair LHIN).
- Residents of the Erie St. Clair LHIN had the **highest** rehabilitation admission rate per 100,000 population in FY16/17.
- Hospitals in the Erie St. Clair LHIN had the 2<sup>nd</sup> greatest reduction over the period in active CCC cases between 2013/14 and 2016/17.

#### Strengths

- The Erie St. Clair LHIN had the **lowest** percentage of employed population (15+) with a commuting duration of 60 minutes or more.
- 18% of Erie St. Clair residents reported that most days were “quite a bit” or “extremely” stressful, which was **significantly lower** than the Ontario rate.
- Over a third (38%) of Erie St. Clair residents received a flu shot in the year preceding the survey, **significantly higher** than for Ontario overall.
- **Highest** percent of residents who reported that they were attached to a primary care provider.
- Patients of Erie St. Clair hospitals spent the **shortest** time waiting in the emergency department to be admitted to an inpatient bed.
- Erie St. Clair hospitals had the **largest** percentage decrease of total acute days among all LHINs.
- Hospitals in the Erie St. Clair LHINs tied for the **highest** ALC throughput ratio.
- Erie St. Clair residents had the 2<sup>nd</sup> lowest proportion of emergency department visits for opioid overdose that were accidental.

---

<sup>1</sup> Or however many sub-regions have reported data across the province.

### Challenges/Opportunities

- The Erie St. Clair LHIN had the **highest** percentage of children under 6 living below the low-income measure (LIM-AT).
- A **significantly higher** proportion of Erie St. Clair residents indicated being exposed to second-hand smoke in the home than Ontarians as a whole.
- Overweight or obesity rates were **significantly higher** than Ontario in Erie St. Clair.
- The Erie St. Clair LHIN had the **highest** rate of forceps use among vaginal deliveries.
- The prevalence rate for Erie St. Clair residents with one or more chronic conditions and for two or more chronic conditions was **significantly higher** than Ontario.
- Erie St. Clair residents have the highest rates of chronic obstructive pulmonary disease (COPD) in the province.
- In 2017/18, emergency departments in the Erie St. Clair LHIN had the **longest** time to physician initial assessment.
- Erie St. Clair emergency departments provided the **longest** time to disposition for non-admitted high acuity patients.
- Erie St. Clair LHIN had the **highest** inpatient rehabilitation admission rate.
- In FY 17/18, Bluewater -Petrolia Site (Erie St. Clair LHIN) had the **highest** rate of ALC designation within 2 days of admission, and within 3 days of admission in the province.



## WINDSOR SUB-REGION HIGHLIGHTS

### Population Characteristics

- 8<sup>th</sup> highest percentage of people age 65+ living alone.
- 4<sup>th</sup> lowest percentage of participants in the labour force with a commuting duration of 60 minutes and over.
- 7<sup>th</sup> lowest percentage of residents age 15+ participating in the labour force.
- **Windsor** had among the eight lowest nursing visit rates per 1,000 population in 2017/18.

### Strengths

- 3<sup>rd</sup> lowest percentage of people who went to ED for something that could have been treated by a primary care provider.

### Challenges/Opportunities

- Overweight or obesity rates were **significantly higher** than Ontario in **Windsor**.
- 2<sup>nd</sup> highest percentage of population living below the low-income measure.
- 2<sup>nd</sup> highest percentage of children under 18 living in low-income households.
- 4<sup>th</sup> highest stillbirth rate in the province.
- Compared to Ontario, the proportion of residents consuming fewer than 5 servings of fruits or vegetables per day was **significantly higher**.
- Statistically **significantly higher** prevalence rate of diabetes than Ontario.
- Statistically **significantly higher** prevalence rate of hypertension than Ontario.
- Among the 8 sub-regions with the highest percentage of complex patients (4+ conditions).

## TECUMSEH LAKESHORE AMHERSTBURG LASALLE SUB-REGION HIGHLIGHTS

### Population Characteristics

- 5<sup>th</sup> lowest percentage of residents age 15+ who were unemployed.
- 2<sup>nd</sup> highest multiple birth rate in the province.

### Strengths

- 7<sup>th</sup> lowest percentage of households with an insufficient number of bedrooms to accommodate household size.
- 2<sup>nd</sup> lowest percentage of residents spending 30% or more of household income on rent or payments.
- 3<sup>rd</sup> lowest percentage population living below the low-income measure.
- 4<sup>th</sup> lowest percentage of children under 6 living in low-income households.
- 4<sup>th</sup> lowest percentage of children under 18 living in low-income households.
- 3<sup>rd</sup> lowest percentage of seniors (65+) living in low-income households.
- 2<sup>nd</sup> lowest percentage of participants in the labour force with a commuting duration of 60 minutes and over.
- Compared to Ontario, the proportion of people with a regular medical doctor was **significantly higher**.
- 7<sup>th</sup> lowest percentage of people who went to ED for something that could have been treated by a primary care provider.
- Tecumseh Lakeshore Amherstburg LaSalle residents had the 7<sup>th</sup> lowest ED visit rate per 1,000 population for MH/SA conditions (main problem diagnosis).
- One of the 8 sub-regions with the lowest hospitalization rates for asthma.
- One of the 8 sub-regions with the lowest hospitalization rates for hypertension.
- Among the 8 sub-regions with the lowest mean cost per complex patient.
- Lowest rate of acute days among Ontario sub-regions.
- At the end of 2017/18, residents of Tecumseh Lakeshore Amherstburg LaSalle had had the 7<sup>th</sup> shortest wait to date for discharge from an ALC designation in hospital (open cases).

### Challenges/Opportunities

- 2<sup>nd</sup> highest percentage of people who went to a walk in clinic for something that could have been treated by a primary care provider if they were available.
- One of the 8 sub-regions with the highest hospitalization rates for cerebrovascular disease.

## ESSEX SOUTH SHORE SUB-REGION HIGHLIGHTS

### Population Characteristics

- 6<sup>th</sup> highest multiple birth rate in the province.
- 5<sup>th</sup> lowest percentage of residents age 25-64 with less than high school.
- 6<sup>th</sup> lowest percentage of residents who died in hospital.
- 4<sup>th</sup> highest rehabilitation admission rate per 100,000 population in FY16/17.

### Strengths

- 8<sup>th</sup> lowest percentage of residents spending 30% or more of household income on rent or payments.
- 5<sup>th</sup> lowest percentage of participants in the labour force with a commuting duration of 60 minutes and over.
- 7<sup>th</sup> lowest “small for gestational age” rate per 100 live births in the province.
- 5<sup>th</sup> lowest percentage of patients with two or more acute inpatient admissions in the last 30 days of life.
- **Lowest** percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days.
- One of the 8 sub-regions with the lowest hospitalization rates for asthma.
- One of the 8 sub-regions with the lowest hospitalization rates for diabetes.
- One of the 8 sub-regions with the lowest hospitalization rates for hypertension.

### Challenges/Opportunities

- 4<sup>th</sup> highest inpatient rehabilitation admission rate in the province.

## CHATHAM CITY CENTRE SUB-REGION HIGHLIGHTS

### Population Characteristics

- 7<sup>th</sup> lowest population in the province. According to the 2016 Census, this sub-region had the 2<sup>nd</sup> greatest decrease in population between 2011 and 2016.
- 6<sup>th</sup> highest percentage of people age 65+ living alone.
- 6<sup>th</sup> highest fertility rate among 15 to 19 year olds in the province.
- 7<sup>th</sup> youngest mean age at first birth in the province.
- 8<sup>th</sup> youngest mean age of mothers giving birth in the province.
- 8<sup>th</sup> lowest multiple live birth rate in the province.
- Among the eight highest total home service visit rates per 1,000 population in 2017/18.
- Among the eight lowest nursing visit rates per 1,000 population in 2017/18.
- 2<sup>nd</sup> lowest percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days.
- 2<sup>nd</sup> lowest percentage of residents who died in hospital.
- 6<sup>th</sup> lowest percentage of patients who receive palliative care who died in hospital in 2016/17 (tied with Oakville).
- 2<sup>nd</sup> highest rehabilitation admission rate per 100,000 population in FY16/17.

### Strengths

- 8<sup>th</sup> lowest percentage of households with an insufficient number of bedrooms to accommodate household size.
- 6<sup>th</sup> lowest percent of residents with one or more unplanned ED visits in the last 30 days of life.

### Challenges/Opportunities

- 4<sup>th</sup> highest percentage of children under 6 living in low-income households.
- One of the 8 sub-regions with the highest hospitalization rates for asthma.
- **Highest** hospitalization rates for hypertension of all Ontario sub-regions.
- One of the 8 sub-regions with the highest hospitalization rates for stroke.
- Among the 8 sub-regions with the highest mean cost per healthcare user.
- Among the 8 sub-regions with the highest percentage of high cost healthcare users.
- 4<sup>th</sup> highest all-cause mortality rate in the province per 100,000 population.
- 2<sup>nd</sup> highest inpatient rehabilitation admission rate in the province.

## RURAL KENT SUB-REGION HIGHLIGHTS

### Population Characteristics

- 4<sup>th</sup> lowest percentage of residents age 25-64 with bachelor's degree completion and beyond.
- 5<sup>th</sup> lowest multiple live birth rate in the province.
- 5<sup>th</sup> highest rehabilitation admission rate per 100,000 population in FY16/17.
- 8<sup>th</sup> shortest rehabilitation length of stay.

### Strengths

- One of the 8 sub-regions with the lowest hospitalization rates for hypertension.
- 8<sup>th</sup> lowest mean length of stay for inpatient rehabilitation.
- 2<sup>nd</sup> lowest percentage of people who went to a walk in clinic for something that could have been treated by a primary care provider if they were available.

### Challenges/Opportunities

- Overweight or obesity rates were **significantly higher** than Ontario in Rural Kent.
- 6<sup>th</sup> highest stillbirth rates in the province.
- 2<sup>nd</sup> highest percent of full-term low birth weight in the province.
- Compared to Ontario, the proportion of residents consuming fewer than 5 servings of fruits or vegetables per day was **significantly higher**.
- **Significantly higher** smoking rates than Ontarians as a whole.
- **Significantly higher** rates of arthritis than Ontario.
- **Significantly higher** rates of diabetes than Ontario.
- **Significantly higher** rates of hypertension than Ontario.
- **Lowest** mean cost per high cost healthcare user of all Ontario sub-regions.
- 5<sup>th</sup> lowest satisfaction with health care in the community.
- 5<sup>th</sup> highest inpatient rehabilitation admission rate in the province.

## LAMBTON SUB-REGION HIGHLIGHTS

### Population Characteristics

- **Highest** percentage of residents age 25-64 with post-secondary education below bachelor's degree.
- 3<sup>rd</sup> highest rehabilitation admission rate per 100,000 population in FY16/17.
- Residents of Lambton had the **shortest** rehabilitation length of stay.

### Strengths

- 4<sup>th</sup> lowest percentage of households with an insufficient number of bedrooms to accommodate household size.
- 7<sup>th</sup> highest self-reported attachment to a primary care provider.
- Lambton had the 3<sup>rd</sup> lowest percent of residents with one or more unplanned ED visits in the last 30 days of life.
- Rate of acute days were the **lowest** for residents of this sub-region.
- **Lowest** mean length of stay for inpatient rehabilitation.

### Challenges/Opportunities

- **Significantly higher** smoking rates than Ontarians as a whole.
- **Significantly higher** rates of arthritis than Ontario.
- **Significantly higher** rates of diabetes than Ontario.
- **Significantly higher** rates of hypertension than Ontario.
- 8<sup>th</sup> highest percentage of residents who found it difficult to access care after-hours without going to an emergency department.
- 3<sup>rd</sup> highest inpatient rehabilitation admission rate in the province.
- 8<sup>th</sup> highest mental health active case rate per 100,000 population age 15+.

## Population Characteristics

### Population Estimates<sup>2</sup>

- As of 2016, the population of the Erie St. Clair LHIN was estimated to be 642,917, a 0.8% increase over 2011.
  - The populations 65 and over and 75 and over represented 19% and 8% of the total population respectively.
- The population of the Erie St. Clair LHIN is projected to increase by 2.4% by 2021 and by 3.8% by 2026.

### Population Estimates from 2016 Census and Ministry of Finance

	Ontario	Erie St. Clair	Comments†
2011 Census, total population	12,851,821	619,056	
2016 Census, total population	13,448,494	627,633	
Population growth between 2011 and 2016 (based on Census)	4.6%	1.4%	
Estimated population, 2011	13,263,544	637,703	
<b>Estimated population, 2016</b>	<b>13,982,984</b>	<b>642,917</b>	
% population age 65+	16.38%	18.69%	
% population age 75+	7.17%	8.23%	
<b>% population change estimated 2011-2016</b>	<b>5.4%</b>	<b>0.8%</b>	
Projected population, 2021	14,980,422	658,099	
Projected population, 2026	15,822,463	667,367	
% changes (based on changes from the 2016 estimates)			
% population change forecasted 2016-2021	7.1%	2.4%	
% population change forecasted 2016-2026	13.2%	3.8%	

### Sub-Region Population Estimates from Ministry of Finance, 2016

Sub-Region Name	Total population	Age 65plus	% 65+	Age 75plus	% 75+
Windsor	221,862	39,637	17.87%	18,134	8.17%
Tecumseh Lakeshore Amherstburg LaSalle	112,997	17,366	15.37%	6,535	5.78%
Essex South Shore	75,544	14,359	19.01%	6,605	8.74%
Chatham City Centre	43,061	8,802	20.44%	3,928	9.12%
Rural Kent	61,661	12,348	20.03%	5,486	8.90%
Lambton	127,792	27,676	21.66%	12,213	9.56%

<sup>2</sup> Please see note in Ontario chapter on Census versus Ministry of Finance estimates.

### Demographics

- 16.4% of the population were in the age group 0-14 and 64.6% were in the age group 15-64.
- The dependency ratio in Erie St. Clair at 71.0 was greater than the province at 64.5.
- The largest proportion of the Erie St. Clair's population (45.7%) lived in large urban communities.
- 31.7% of Erie St. Clair's population lived in medium/small population centre communities.
- 17.7% of Erie St. Clair's population lived in rural or small communities adjacent to urban areas communities.
- The smallest proportion of Erie St. Clair's population (4.8%) lived in rural and small town communities.
- Erie St. Clair's land mass measures 7,324 square kilometres making it the 8<sup>th</sup> largest LHIN in the province.
- Erie St. Clair's population density was 85.7 persons per square kilometre, making it the 7<sup>th</sup> least densely populated LHIN in the province.

### Households

- In 2016, 111,300 households contained one or more family members aged 65 years and over. 27.0% of those individuals are living alone.
  - Of Erie St. Clair sub-regions, **Chatham City Center** had the highest rate of seniors living alone (32.2%) and **Tecumseh Lakeshore Amherstburg LaSalle** had the lowest (20.1%).
  - **Windsor** had the highest rate of one person households (34.0%) and **Tecumseh Lakeshore Amherstburg LaSalle** had the lowest (19.3%).
  - **Tecumseh Lakeshore Amherstburg LaSalle** and **Essex South Shore** had the highest rate of 5 or more person households (9.9%) and **Chatham City Center** had the lowest (6.0%).
- In 2016, 103,780 families with children lived within the Erie St. Clair LHIN. 30.2% of those families were lone parent.
  - Of Erie St. Clair sub-regions, **Chatham City Center** had the highest rate of lone-parent families (37.8%) and **Tecumseh Lakeshore Amherstburg LaSalle** had the lowest (21.0%).
- The total number of owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio was 250,930. 20.9% of those households spent 30% or more of their income on rent or payments.
  - Of Erie St. Clair sub-regions, **Windsor** had the highest rate (25.9%) and **Tecumseh Lakeshore Amherstburg LaSalle** had the lowest (13.0%).
- The total number of private households was 256,710. 73.1% of those were owner occupied, 26.9% were rented, and 0.1% were band housing.
  - By sub-region and owner occupation rate, **Tecumseh Lakeshore Amherstburg LaSalle** had the highest rate (89.7%) with **Chatham City Center** having the lowest (62.8%).
- 6.9% of the private households in Erie St. Clair were in need of major repair, and
  - Of Erie St. Clair sub-regions, **Rural Kent** had the highest rate (9%) and **Tecumseh Lakeshore Amherstburg LaSalle** had the lowest (4.9%).
- 3.5% of the private households in the Erie St. Clair LHIN had an insufficient number of bedrooms to accommodate the household makeup.
  - **Windsor** had the highest rate of unsuitable housing (5.1%) and **Lambton** had the lowest (2.1%).



## Language

- In 2016, nearly 81% of the population reported English and just over 3% reported French as their mother tongue in Erie St. Clair LHIN.
  - By sub-region, **Lambton** had the highest rate (91.5%) and **Windsor** had the lowest proportion of residents who identified English as their mother tongue (70.1%).
  - By sub-region, **Tecumseh Lakeshore Amherstburg LaSalle** had the highest proportion (4.9%) and **Essex South Shore** had the lowest proportion of residents who identified French as their mother tongue (1.9%).
- In 2016, 3.3% of Erie St. Clair residents were Francophone under the 2009 new Inclusive Definition of Francophone.
  - By sub-region, **Tecumseh Lakeshore Amherstburg LaSalle** had the highest proportion of Francophone residents (5.0%) and **Essex South Shore** had the lowest (2.1%).
- 1.4% of the LHIN's population reported no knowledge of either official language.
  - By sub-region, **Essex South Shore** reported the highest proportion of residents with no knowledge of English or French (2.8%) and **Lambton** had the lowest (0.2%).
- Just over 88% of the population reported English as their first language spoken in the home, followed by those with a mix of both English and a non-official language (2.9%), Arabic (1.4%), German (0.7%) and French (0.7%).

## Income

- In the Erie St. Clair LHIN, 15.9% of the population lived on a low income based on the after-tax low income measure (LIM-AT).
  - The proportion of residents living in low income varied by sub-region, from 6.3% in the **Tecumseh Lakeshore Amherstburg LaSalle** sub-region to 23.3% in the **Windsor** sub-region.
  - The proportion of households in the lowest income quintile ranged from 8.9% in the **Tecumseh Lakeshore Amherstburg LaSalle** sub-region to 29.2% in the **Windsor** sub-region.
- In the Erie St. Clair LHIN, 25.1% of children under the age of 6 lived in low income households.
  - Across Erie St. Clair sub-regions, children living in low income households ranged from 8.2% in the **Tecumseh Lakeshore Amherstburg LaSalle** sub-region to 36.8% in the **Windsor** sub-region.
  - The proportion of households in the highest income quintile varied across sub-regions in Erie St. Clair, from 12.6% in the **Rural Kent** sub-region to 31.1% in the **Tecumseh Lakeshore Amherstburg LaSalle** sub-region.

## Immigration

- In 2016, immigrants accounted for 17.4% of the Erie St. Clair LHIN population. From 1980 to 2016, 35.1% of immigrants were admitted as economic immigrants, 34.3% were sponsored by family and 28.8% were admitted as refugees. 2.0% of Erie St. Clair LHIN residents were recent immigrants, having arrived in Canada between 2011 and 2016. Of the **recent immigrants**, the highest proportion (17.5%) came from Iraq, followed by the United States (9.4%) and Syria (9.0%).
  - Among the six Erie St. Clair LHIN sub-regions, the percentage of immigrants ranged from 7.9% in **Rural Kent** to 27.8% in **Windsor**.
  - The percentage of recent immigrants ranged from 0.5% in both **Rural Kent** and **Lambton** to 4.3% in **Windsor**.
- In 2016, 18.9% of the Erie St. Clair LHIN population were **first generation Canadians** (children of immigrants).
  - Among the six Erie St. Clair LHIN sub-regions, the percentage of first generation Canadians ranged from 8.6% in **Rural Kent** to 30.2% in **Windsor**.

### Visible Minorities

- In 2016, 13.1% of the Erie St. Clair LHIN population were visible minorities.
  - Among the six Erie St. Clair LHIN sub-regions, the percentage of visible minorities ranged from 2.8% in [Rural Kent](#) to 26.9% in [Windsor](#).

### Indigenous (Aboriginal) Identity

- 3.4% of the Erie St. Clair LHIN's residents identified as Aboriginal, with 2.0% identifying as First Nations and 1.3% as Métis.
  - Among the six Erie St. Clair LHIN sub-regions, the percentage of residents reporting Aboriginal identity ranged from 2.1% in [Essex South Shore](#) to 7.1% in [Rural Kent](#).

### Education

- In 2016, 20.7% of Erie St. Clair LHIN residents of working age had completed post-secondary education.
  - Across Erie St. Clair sub-regions, the percentage of the population with less than high school ranged from 6.2% in [Tecumseh Lakeshore Amherstburg LaSalle](#) to 19.8% in [Essex South Shore](#).
  - The percentage of the population with high school completion ranged from 26.9% in [Tecumseh Lakeshore Amherstburg LaSalle](#) to 30.4% in all three of [Windsor](#), [Essex South Shore](#), and [Rural Kent](#).
  - The percentage of the population with post-secondary education below bachelor's degree ranged from 32.6% in [Windsor](#) to 46.8% in [Lambton](#).
  - The percentage of the population with bachelor's degree completion and beyond ranged from 11.1% in [Rural Kent](#) to 27.5% in [Tecumseh Lakeshore Amherstburg LaSalle](#).

### Labour Force Participation

- In 2016, Erie St. Clair LHIN had an unemployment rate of 7.5%, and had the 3<sup>rd</sup> lowest labour force participation rate (60%) in 2016.
- Of those employed in 2016, 21% (the 2<sup>nd</sup> lowest of all the LHINs) of Erie St. Clair LHIN residents had a commute time from their residence to their place of work of 30 minutes or more, while 6.7% (the 2<sup>nd</sup> lowest of all the LHINs) had a commute time of 45 minutes or more.

## 2016 Census Profile

	Ontario	Erie St. Clair	Comments†
<b>Census Population 2016</b>			
Dependency ratio (number of "dependents" for every 100 "workers")	64.5	71.0	
<b>Urban-Rural Gradient</b>			
% large urban	68.1%	45.7%	
% medium/small population centre	14.7%	31.7%	
% rural or small communities adjacent to urban areas	8.4%	17.7%	2 <sup>nd</sup> highest
% rural and small town	8.8%	4.8%	
Land Area (sq km)	908,699	7,324	
Population Density (persons per square kilometre)	14.8	85.7	
<b>Population by Household and Families</b>			
% of people age 65+ living alone	23.5%	27.0%	
% of dwellings in need of major repairs	6.1%	6.9%	
% of households with an insufficient # of bedrooms	6.0%	3.5%	
<b>Language</b>			
% who report English as their mother tongue	69.5%	80.8%	
% who report French as their mother tongue	4.3%	3.1%	
% with no knowledge of English or French	2.5%	1.4%	
% Francophone (IDF)	4.7%	3.3%	
<b>Population (in Private Households) Living in Low Income</b>			
% Population living below low-income measure (LIM-AT)	14.4%	15.9%	2 <sup>nd</sup> highest
% Children living in low income households/LIM (age<6)	19.8%	25.1%	Highest
% Children living in low income households/LIM (age<18)	18.4%	21.6%	2 <sup>nd</sup> highest
% Seniors living in low income households/LIM (age 65+)	12.0%	11.3%	
<b>Immigration</b>			
% of population who are immigrants	29.1%	17.4%	
% of population who arrived within 5 years	3.6%	2.0%	
% first generation Canadian (children of immigrants)	31.1%	18.9%	
<b>Visible Minorities</b>			
% of population who are visible minorities	29.3%	13.1%	
<b>Indigenous Identity</b>			
% of population of Aboriginal identity	2.8%	3.4%	
% population First Nations identity	1.8%	2.0%	
% population Metis identity	0.9%	1.3%	
% population Inuk identity	0.0%	0.0%	
% Multiple Aboriginal responses	0.0%	0.1%	
% Aboriginal responses not included elsewhere	0.1%	0.1%	
<b>Educational Attainment</b>			
% Population age 25-64 with less than high school	10.4%	11.7%	
% Population age 25-64 with high school completion	24.5%	29.2%	2 <sup>nd</sup> highest
% Population age 25-64 with post-secondary education below bachelor's degree	33.2%	38.4%	
% Population age 25-64 with bachelor's degree completion and beyond	31.9%	20.7%	
<b>Labour Force Activity</b>			
% In the labour force (Participation rate)	64.7%	59.8%	
% Unemployed	7.4%	7.5%	
% 60 minutes and over commuting duration	12.4%	2.8%	Lowest

†Ranking in the province, compared to other LHINs.

## Sub-Region Profiles, 2016 Census

Sub-Region	Windsor	Tecumseh Lakeshore Amherstburg LaSalle	Essex South Shore	Chatham City Centre	Rural Kent	Lambton
<b>Census Population 2016</b>						
Dependency ratio (number of "dependents" for every 100 "workers")	66.8	69.2	74.1	78.0	76.2	73.9
<b>Urban-Rural Gradient</b>						
% large urban	99.5%	63.4%	0.0%	0.0%	0.0%	0.0%
% medium/small population centre	0.0%	13.4%	48.6%	100.0%	46.0%	64.1%
% rural or small communities adjacent to urban areas	0.5%	23.3%	42.5%	0.0%	51.3%	18.3%
% rural and small town	0.0%	0.0%	8.9%	0.0%	2.7%	17.6%
Land Area (sq km)	146	876	849	29	2,558	2,865
Population Density (persons per square kilometre)	1,483.8	127.8	84.9	1,445.4	23.4	43.7
<b>Population by Household and Families</b>						
% of people age 65+ living alone	31.1%	20.1%	24.0%	32.2%	25.2%	26.9%
% Of dwellings in need of major repairs	7.4%	4.9%	6.0%	6.9%	9.0%	7.1%
% of households with an insufficient # of bedrooms	5.1%	2.3%	3.9%	2.3%	2.9%	2.1%
<b>Language</b>						
% who report English as their mother tongue	70.1%	83.4%	77.5%	89.5%	89.6%	91.5%
% who report French as their mother tongue	3.0%	4.9%	1.9%	2.9%	3.0%	2.2%
% with no knowledge of English or French	2.6%	0.5%	2.8%	0.5%	0.6%	0.2%
% Francophone	3.5%	5.0%	2.1%	2.9%	3.0%	2.3%
<b>Population (in Private Households) Living in Low Income</b>						
% Population living below low-income measure (LIM-AT)	23.3%	6.3%	12.0%	20.4%	15.6%	13.0%
% Children living in low income households/LIM (age<6)	36.8%	8.2%	19.9%	33.1%	25.5%	19.8%
% Children living in low income households/LIM (age<18)	33.1%	7.9%	15.9%	26.7%	20.7%	17.3%
% seniors living in low income households/LIM (age 65+)	14.6%	5.9%	10.3%	14.6%	13.3%	9.5%
<b>Population by Income Quintiles</b>						
% Economic families in Income quintile 1 - lowest income	29.2%	8.9%	17.5%	26.8%	23.1%	18.1%
% Economic families in Income quintile 2	21.1%	14.3%	23.5%	23.6%	24.9%	18.7%
% Economic families in Income quintile 3	18.9%	19.6%	22.4%	19.0%	21.1%	19.9%
% Economic families in Income quintile 4	16.9%	26.0%	20.5%	17.2%	18.2%	21.6%
% Economic families in Income quintile 5 - highest income	13.8%	31.1%	16.2%	13.2%	12.6%	21.7%
<b>Immigration</b>						
% of population who are immigrants	27.8%	13.5%	17.1%	9.1%	7.9%	10.1%
% of population who arrived within 5 years	4.3%	0.8%	1.1%	0.6%	0.5%	0.5%
% first generation Canadian (children of immigrants)	30.2%	14.6%	18.5%	9.8%	8.6%	11.1%

Sub-Region	Windsor	Tecumseh Lakeshore Amherstburg LaSalle	Essex South Shore	Chatham City Centre	Rural Kent	Lambton
<b>Visible Minorities</b>						
% of population who are visible minorities	26.9%	8.0%	6.2%	7.3%	2.8%	4.5%
<b>Indigenous Identity</b>						
% of population of Aboriginal identity	2.6%	2.6%	2.1%	3.6%	7.1%	4.3%
% population First Nations identity	1.3%	0.9%	0.9%	2.0%	5.5%	3.1%
% population Metis identity	1.2%	1.6%	1.0%	1.6%	1.5%	1.0%
% population Inuk identity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Multiple Aboriginal responses	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%
% Aboriginal responses not included elsewhere	0.1%	0.1%	0.0%	0.1%	0.0%	0.1%
<b>Educational attainment</b>						
% Population age 25-64 with less than high school	11.7%	6.2%	19.8%	14.7%	16.9%	9.1%
% Population age 25-64 with high school completion	30.4%	26.9%	30.4%	28.9%	30.4%	27.9%
% Population age 25-64 with post-secondary education below bachelor's degree	32.6%	39.5%	36.1%	40.1%	42.0%	46.8%
% Population age 25-64 with bachelor's degree completion and beyond	25.2%	27.5%	13.7%	16.2%	11.1%	16.2%
<b>Labour Force Activity</b>						
% In the labour force (Participation rate)	57.0%	65.5%	61.4%	59.0%	60.2%	58.8%
% Unemployed	9.2%	5.1%	5.8%	8.6%	6.9%	8.0%
% 60 minutes and over commuting duration	2.2%	1.4%	2.5%	4.2%	5.2%	3.6%

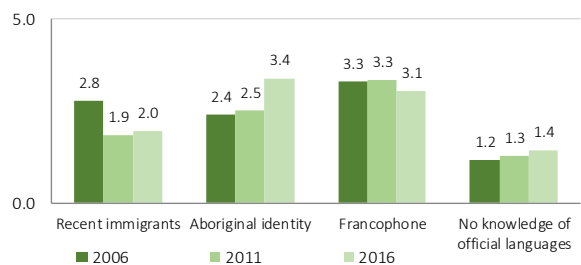
## Erie St. Clair

### 2016 Census Profile Summary

#### Number of private dwellings

2006	264,755
2011	269,367
2016	274,633

#### Immigration, identity and language (% of population)

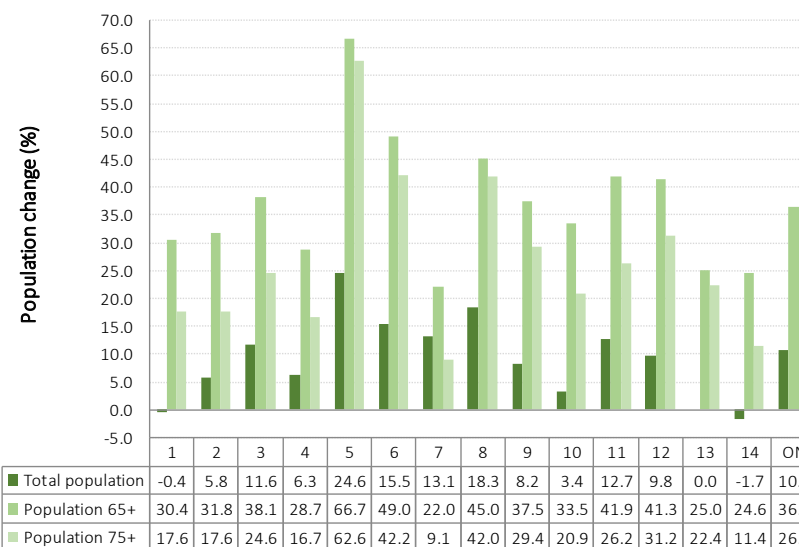


#### Population change (2006-2016)

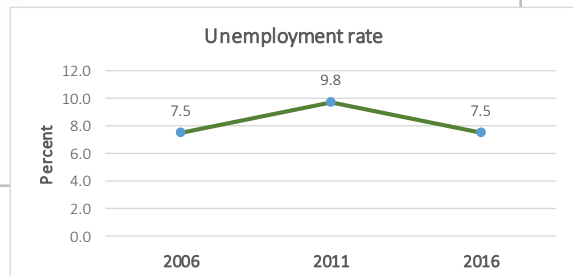
The growth of the senior (65+) population across LHINs ranged from 67% in Central West to 22% in Toronto Central.

The growth of the population age 75+ in Erie St. Clair between 2006 and 2016 was 17.6%, compared to 26.2% for the province as a whole. Total LHIN population growth was -0.4% for the same period.

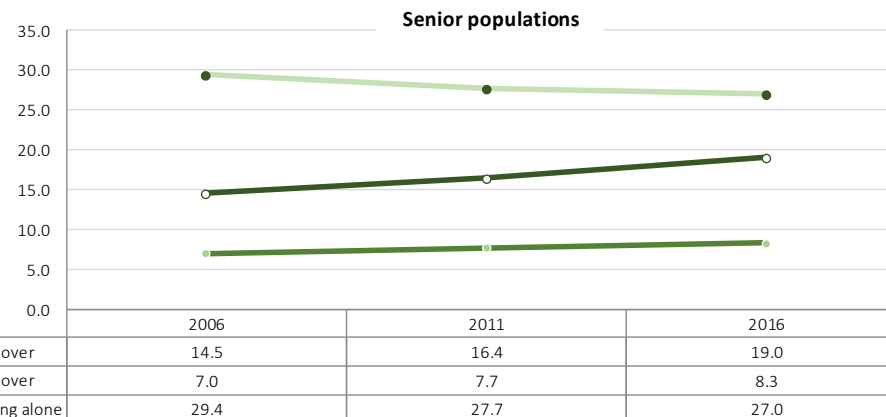
#### Population change, 2006 to 2016, by LHIN



#### Change in unemployment rate, 2006 to 2016 = 0.3%



#### Percent population



## Births and Mortality

### Births and Maternal Age

- In FY 2016/17, there were 5,694 pregnancies and 5,976 births to Erie St. Clair women. 98% of births took place in a hospital; the remaining 2% were in the home, birth centre or other (including nursing stations, births outside of Ontario and other Ontario locations).
- In 2016, the crude birth rate (per 1,000) population in Erie St. Clair was 9.4.
- The fertility rate per 1,000 Erie St. Clair females of reproductive age (15 to 49) was 43.5.
- For teenagers (15 to 19), the fertility rate per 1,000 Erie St. Clair females was 11.0.
  - By sub-region, **Chatham City Centre** sub-region had the 6<sup>th</sup> highest fertility rate among 15 to 19 year olds in the province (18.4).
- In FY2016, Erie St. Clair LHIN had the 3<sup>rd</sup> highest percent of women under 20 years of age who gave birth (3.5%). 16.6% of women were 35 years or older.
- The overall mean age of mothers giving birth in this LHIN was 29.3.
  - By sub-region, **Chatham City Centre** had the 8<sup>th</sup> youngest mean age in the province (28.1).
- In 2016, the stillbirth rate per 1,000 live births in Erie St. Clair was 9.5.
  - By sub-region, **Windsor** and **Rural Kent** had the 4<sup>th</sup> and 6<sup>th</sup> highest stillbirth rates in the province (12.1 and 11.9, respectively).

### Multiple Births

- The multiple live birth rate per 100 live births in 2016 was 3.5.
  - By sub-region, **Rural Kent** and **Chatham City Centre** had the 5<sup>th</sup> and 8<sup>th</sup> lowest multiple live birth rate in the province (1.6 and 2.1, respectively). **Tecumseh Lakeshore Amherstburg Lasalle** and **Essex South Shore** sub-regions had the 2<sup>nd</sup> and 6<sup>th</sup> highest multiple birth rates in the province (5.0 and 4.3, respectively).

### Pre-Term Births

- In 2016, the pre-term birth rate per 100 live births was 8.1.
  - The full-term low birth weight rate per 100 live births was 2.0.
    - By sub-region, **Rural Kent** had the 2<sup>nd</sup> highest full-term low birth weight in the province (3.3).

### Size for Gestational Age and Birth Weight

- In 2016, the small for gestational age rate per 100 live births was 8.7.
  - By sub-region, **Essex South Shore** had the 7<sup>th</sup> lowest small for gestational age rate per 100 live births in the province (5.9).
- The large for gestational age rate per 100 live births was 10.8.

### Attendants, Assisted Delivery & Epidural Anaesthesia during Labour

- In Erie St. Clair, 89% hospital births were attended by an obstetrician, the 2<sup>nd</sup> highest proportion in the province. The **lowest** proportion of births attended by a family doctor (2.4%) was for deliveries in this LHIN's hospitals.
- Among vaginal deliveries, the overall assisted delivery rate for Erie St. Clair women was 10,. The assisted delivery rate using vacuum extraction was the 2<sup>nd</sup> lowest (4.5) in the province. In Erie St. Clair, assisted delivery rate using forceps (5.2) was the **highest** in the province.
- The epidural rate for vaginal deliveries was 68.4 and for all deliveries was 57.0. Both of these rates were the 2<sup>nd</sup> highest in the province.

### Caesarean Deliveries

- In FY 2016/17, Caesarean deliveries accounted for 26.3% of all births in Erie St. Clair hospitals.
- The rate of primary Caesarean section rate (the mother's first Caesarean, regardless if she has given birth vaginally before) was 16.9 per 100 deliveries. The primary Caesarean section rate was lower in women under 35 years of age (16.6) compared to those 35 and over (18.4).
- The rate of repeat Caesarean sections in Erie St. Clair was 81.6 per 100 deliveries.

### Breastfeeding

- The rate of exclusive breastfeeding at discharge among term live births was 60.7% in this LHIN.



## Births and Maternal Outcomes, Erie St. Clair

	Erie St. Clair	Ontario	Comments <sup>†</sup>
Total births in Ontario, LHIN of maternal residence	5,976	141,163	
Hospital	5,849	136,505	
Home	125	3,813	
Birth Centre	0	572	
Crude birth rate (per 1,000 population)	9.4	9.8	
Stillbirth rate (per 1,000 live births)	9.5	8.1	
Multiple live birth rate (per 100 live births)	3.5	3.3	
Rate of preterm birth (<37 weeks) (%) <sup>*</sup>	8.1%	8.2%	
Preterm birth rate (per 100 live births) <sup>**</sup>	8.1	8.1	
Total pregnancies in Ontario, LHIN of maternal residence	5,694	138,781	
Fertility rate (per 1,000 females of reproductive age)			
Overall rate (15 to 49)	43.5	41.2	
Teen rate (15 to 19)	11.0	6.3	
Distribution of maternal age (%)			
<20	3.5%	1.9%	
≥ 35	16.6%	23.8%	
Mean age of mother at birth of first infant	27.4	29.3	
Overall mean age of mother at birth	29.3	30.7	
Rate of Caesarean delivery (%), LHIN of hospital	26.3%	28.4%	
Total Caesarean Section Rate, LHIN of patient	26.3	28.4	
Primary Caesarean Section Rate, LHIN of patient	16.9	19.0	
Primary C-Section Rate (< 35 years)	16.6	17.9	
Primary C-Section Rate (≥ 35 years)	18.4	22.9	
Repeat Caesarean Section Rate	81.6	82.7	
Epidural Rate for Vaginal Deliveries	68.4	60.3	
Epidural Rate for All Deliveries	57.0	51.0	2 <sup>nd</sup> highest
Assisted Delivery Rate Among Vaginal Deliveries			
Overall	10.0	12.3	
Vacuum Extraction	4.5	9.1	
Forceps	5.2	2.8	
Healthcare provider who caught the baby for hospital births (%), LHIN of hospital			Highest
Obstetrician	89.0%	78.8%	
Family doctor	2.4%	7.4%	2 <sup>nd</sup> highest
Midwife	7.7%	7.4%	Lowest
Other	0.9%	6.4%	
Low birth weight rate (per 100 live births)	6.8	6.8	
Fullterm low birth weight rate (per 100 live births)	2.0	2.0	
Births small for gestational age (%) <sup>*</sup>	8.4%	9.7%	
Small for gestational age (per 100 live births) <sup>**</sup>	8.7	9.6	
Births large for gestational age (%) <sup>*</sup>	10.4%	9.7%	
Large for gestational age (per 100 live births) <sup>**</sup>	10.8	9.8	
Rate of exclusive breastfeeding among term live hospital births (%), LHIN of maternal residence	60.7%	62.8%	

<sup>†</sup>Ranking in the province compared to other LHINs.

<sup>\*</sup> As reported by BORN Ontario

<sup>\*\*</sup> As reported by Public Health Ontario

## Maternal smoking, alcohol and drug use during pregnancy among all women who live in Ontario and who had a live birth or stillbirth (LHIN of maternal residence), 2016/17 (BORN)

- In Erie St. Clair, the rate of women who self-identified as non-smokers at first prenatal visit was 88.9%. At the time of labour, 90.4% were non-smokers.
  - The prevalence of smoking 1-10 cigarettes and 10+ cigarettes at the first prenatal visit was 6.6% and 3.6%, respectively.
- 2.1% of the women reported drinking alcohol and 2.9% using drugs during pregnancy.

	Erie St. Clair	Ontario	Comments†
<b>Maternal smoking at first prenatal visit (%)</b>			
LHIN of maternal residence‡			
% women who reported smoking (0) cigarettes/day	88.9%	90.7%	
% women who reported smoking (1 – 10) cigarettes/day	6.6%	5.5%	
% women who reported smoking (10+) cigarettes/day	3.6%	3.2%	
<b>Maternal smoking at time of labour (%)</b>			
% women who reported smoking (0) cigarettes/day	90.4%	92.5%	
% women who reported smoking (1 – 10) cigarettes/day	5.7%	4.6%	
% women who reported smoking (10+) cigarettes/day	3.3%	2.6%	
Alcohol consumption during pregnancy (%)	2.1%	2.6%	
Drug and substance exposure during pregnancy (%)	2.9%	2.3%	

†Ranking in the province compared to other LHINs.

## Life Expectancy

- Life expectancy at birth for both males and females in 2012-2014 was 81 years. By sex, life expectancy at birth for males in Erie St. Clair was 80 years, and 83 years for females.
- Life expectancy at age 65 for both sexes from 2012-2014 was 20 years. By sex, life expectancy at age 65 for males in Erie St. Clair was 18 years, and 22 years for females.

	Erie St. Clair LHIN	Ontario	Rank among LHINs†
<b>Life Expectancy</b>			
<b>Life expectancy at birth- Both Sexes 2012-14</b>	81.2	82.3	
<b>Life expectancy at birth- Male 2012-14</b>	78.9	80.2	
<b>Life expectancy at birth- Female 2012-14</b>	83.4	84.3	
<b>Life expectancy at age 65- Both Sexes 2012-14</b>	20.4	20.9	
<b>Life expectancy at age 65- Male 2012-14</b>	18.6	19.3	
<b>Life expectancy at age 65- Female 2012-14</b>	21.9	22.2	

†Ranking in the province compared to other LHINs (highest and lowest 2).

## Mortality and Potential Years of Life Lost

- In 2012, 5,296 Erie St. Clair residents died.
- The all-cause mortality rate for LHIN residents was 829 per 100, 000 population in 2012.
  - By sub-region, **Chatham City Centre** had the 4<sup>th</sup> highest all-cause mortality rate in the province per 100,000 population (867).
- Ischaemic heart disease was the leading cause of death in Erie St. Clair LHIN, followed by cancer of lung and bronchus and cerebrovascular disease.
- 32,377 years of potential life were lost by LHIN residents in 2012.

- The LHIN's potential years of life lost (PYLL) rate for 2012 was 5,488 per 100,000 population aged less than 75. Since 2007, the PYLL rate increased by 2.1% for Erie St. Clair residents.
- The leading causes of PYLL in 2012 were Ischaemic heart disease, Cancer of lung and bronchus and intentional self-harm. The PYLL rate for congenital malformations, deformations and chromosomal abnormalities in 2012 was the **highest** amongst all the LHINs (270 per 100,000 population).

### Mortality, Potential Years of Life Lost

	Erie St. Clair LHIN	Ontario	Rank among LHINs†	Range across ESC sub-regions (2010-2012)
<b>Mortality, 2012</b>				
Total deaths, 2012	5,296	90,525		448-1777
% change in total deaths (2007-2012)	0.3%	4.1%		NA
All-cause mortality rate per 100,000 population	829.2	675		670.3-1053.0
% change in all-cause mortality rate (2007-2012)	2.3%	-0.7%		NA
% of deaths that were premature (age < 75)	39.0%	37.3%		34.4%-43.1%
<b>Top 10 leading causes of death, 2012 (rates per 100,000 population)<sup>3</sup></b>				
Ischaemic heart disease	130.0	98.0	2 <sup>nd</sup> highest	89-242
Cancer of lung & bronchus	63.3	50.3		36-142
Cerebrovascular diseases	51.7	36.6		26-100
Dementia & Alzheimer's disease	51.5	55.6		28-87
Chronic lower respiratory diseases	38.2	28.4		24-87
Cancer of colon, rectum, anus	29.9	23.4		17-55
Diabetes	24.1	20.7		12-46
Cancer of lymph, blood & related	25.2	20.0	2 <sup>nd</sup> highest	11-51
Falls	20.0	17.4		8-39
Cancer of Pancreas	16.6	12.2		NA
<b>Potential years of life lost (PYLL), 2012</b>				
Total PYLL, 2012	32,377	551,256		2,344-11,868
% change in PYLL (2007-2012)	-0.3%	-0.6%		NA
PYLL rate per 100,000 population (age < 75)	5,488	4,405		4,212.1-6,163.5
% change in PYLL rate (2007-2012)	2.1%	-5.0%		NA
<b>Top 10 leading causes of PYLL, 2012 (rates per 100,000 population, age &lt; 75)<sup>4</sup></b>				
Ischaemic heart disease	541.5	406.8	Highest	345.1-1,085.8
Cancer of lung & bronchus	468.5	322.6		424.4-667.5
Accidental poisoning	286.1	190.6		102.4-408.0
Congenital malformations, deformations,	270.0	149.0		102.4-334.6
Transport accidents	241.7	171.8		46.6-414.9
Intentional self-harm	214.7	284.7		203.9-374.9
Cirrhosis & other liver diseases	190.3	133.5		NA
Cancer of colon, rectum, anus	184.1	141.3	2 <sup>nd</sup> lowest	134.4-236.7
Perinatal conditions	165.3	253.3		0.0-226.5
Cancer of breast	160.2	147.0		100.5-238.0

†Ranking in the province, compared to other LHINs.

<sup>3</sup> Mean rate from 2010-2012

<sup>4</sup> Mean rate from 2010-2012

## General Health, Risk Factors, and Prevention

### General Health

- In 2015-16, 59% of Erie St. Clair residents said they had very good or excellent health.
- 73% reported very good or excellent mental health. The rate declined between 2005 and 2014, as it did in Ontario overall<sup>5</sup>.
- 18% of Erie St. Clair residents reported that most days were “quite a bit” or “extremely” stressful, which was **significantly lower** than the Ontario rate.

### Prevention

- 90% of Erie St. Clair residents reported having a regular medical doctor.
  - Compared to Ontario, the proportion of people with a regular medical doctor was **significantly higher** in the **Tecumseh Lakeshore Amherstburg LaSalle** sub-region (94%).
- Over a third (38%) of Erie St. Clair residents received a flu shot in the year preceding the survey, **significantly higher** than for Ontario overall.

### Risk Factors

- 19% of Erie St. Clair residents reported daily or occasional smoking in 2015-16. Compared to Ontario, **significantly higher** smoking rates were found in the sub-regions of **Rural Kent** and **Lambton**. In addition, 9% of residents indicated being exposed to second-hand smoke in the home, which is also **significantly higher** than the rate for Ontarians as a whole.
- Approximately 1 in 5 or 20% of Erie St. Clair residents reported heavy drinking. Heavy drinking is defined as having consumed 5 or more drinks for males and 4 or more drinks for women on at least one occasion at least once a month during the past year.
- Over two-thirds or 67% of adult Erie St. Clair residents were either overweight or obese with nearly 35% of adult residents being obese. Overweight or obesity rates are **significantly higher** than Ontario in the LHIN overall, and specifically in **Windsor** and **Rural Kent** sub-regions. Overweight and obesity are rising over time in Ontario, and many of the LHINs.
- The rate of overweight or obesity in Erie St. Clair was 57% in 2005 and 63% in 2014.
- 45% of Erie St. Clair residents were physically inactive—now defined as less than 150 minutes of moderate to vigorous activity per week.
- 74% of Erie St. Clair residents did not consume enough fruits and vegetables (i.e., had fewer than 5 servings of fruits or vegetables daily). Compared to Ontario, the proportion of residents consuming less than 5 servings per day was **significantly higher** in **Windsor** and **Rural Kent** Sub-Regions.

---

<sup>5</sup> 2005 to 2014 rates are not directly comparable with those from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

## General Health, Risk Factors, and Prevention, Erie St. Clair LHIN

	Erie St. Clair LHIN 2015-16	Ontario (2015-16)	Rank among LHINs <sup>†</sup> (2015-16)	Range across ESC sub- regions (2011-14)*
<b>General Health</b>				
General health, % of the population age 12+ with...				
Very good or excellent self-perceived health	59%	61%		53-63%
Very good or excellent self-perceived mental health	73%	71%	2 <sup>nd</sup> highest	67-75%
Days that are 'quite a bit' or 'extremely' stressful (age 15+)	18% <sup>-1</sup>	22%	Lowest	
<b>Prevention</b>				
Use of Health Services and Preventive Care, % of the population age 12+ who...				
Have a regular medical doctor	90%	90%		90-94%
Have consulted with family doctor/general practitioner (past yr)	75%	74%		
Received flu shot in the past year	38% <sup>1</sup>	33%	2 <sup>nd</sup> highest	
<b>Risk Factors</b>				
Risk factors, % of the population age 12+ who...				
Are daily or occasional smokers	19%	17%		16.4-25.9%
Are exposed to second-hand smoke in the home	9.3% <sup>1</sup>	6.9%		
Are heavy drinkers	20%	18%		
Are overweight or obese (age 18+)	68% <sup>1</sup>	61%		58-67%
Are overweight (age 18+)	33%	35%		34-39%
Are obese (age 18+)	35% <sup>1</sup>	26%	2 <sup>nd</sup> highest	22-27% <sup>c</sup>
Are physically inactive	45%	42%		44-53%
Consume < 5 servings of fruits/vegetables daily	74%	72%	2 <sup>nd</sup> highest	61-71%

\*2011-2014 sub-region rates are not directly comparable with LHIN and Ontario rates from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

<sup>†</sup>Top or bottom 3 ranking in the province, compared to other LHINs. Interpret with caution, rank based on point estimate, which may or may not be significantly different from Ontario. See significance flags for each measure below.

<sup>1</sup> LHIN is **significantly higher** than Ontario

<sup>-1</sup> LHIN is **significantly lower** than Ontario

<sup>c</sup> Estimates with high sampling variability (CV between 16.6 -33.3) must be used with caution.

## Chronic Conditions

### Prevalence, Mortality, hospital separations and hospital days of stay for selected chronic conditions

- 44.5% of Erie St. Clair residents (aged 12+) reported having a one or more chronic conditions while 20.8% had two or more chronic conditions.
- Of note, the prevalence rate for residents with one or more chronic conditions was **significantly higher** than Ontario (39.6%).
- Additionally, the prevalence rate for residents with two or more chronic conditions was **significantly higher** than Ontario and was the 2<sup>nd</sup> highest among the LHINs.
- Chronic conditions with highest or lowest prevalence rates compared to other LHINs are as follows: Cancer - 2<sup>nd</sup> highest; COPD (35+) - **Highest**; Heart disease - 2<sup>nd</sup> highest
- The mean health care cost per user for Erie St. Clair residents in 2015/16 was \$3,050 (\$2,750 for Ontario).
- 7.3% of the patients were complex (4+ conditions), 5.8% for Ontario. Erie St. Clair LHIN was among the 3 LHINs with the largest proportion of complex patients.
- The mean healthcare cost of a complex patient was \$20,600 compared to \$22,050 for Ontario.
- 5.9% of the patients were high cost user patients, 5.0% for Ontario.
- The mean healthcare cost per high cost user was \$36,150 compared to \$37,700 for Ontario. Erie St. Clair LHIN was among the 3 LHINs with the lowest mean cost per high cost user.

### Chronic Conditions, Complex Patients

Condition	Erie St. Clair	Ontario	Comment
<b>Self-reported prevalence (2015-16), rate per 100, age 12+</b>			
Arthritis	25.5	20.6	
Asthma	8.9	8.7	
Cancer	1.9 <sup>C</sup>	1.3	2 <sup>nd</sup> highest
Chronic Obstructive Pulmonary Disease (COPD) (age 35+)	8.4	4.0	Highest
Diabetes	8.7	7.4	
High blood pressure	20.7	18.2	
Heart disease	5.5	4.6	2 <sup>nd</sup> highest
Suffer from effects of stroke	1.6 <sup>C</sup>	1.3	
Have a chronic condition	44.5	39.6	
Have multiple chronic conditions <sup>1</sup>	20.8	16.2	2 <sup>nd</sup> highest

C: 0.15<CV<=0.25 Marginal (Use with caution-high sampling variability)

D: 0.25<CV<=0.35 Marginal (Use with caution-high sampling variability)

1 - Of the selected conditions on this list

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>			
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	32.7	34.3	
Cardiovascular disease	972.7	916.9	
Cerebrovascular disease	147.9	133.2	
COPD	199.0	171.8	
Diabetes	94.1	100.2	
Hypertension	17.4	18.0	
Ischemic heart disease	351.8	314.8	
Lower respiratory disease	233.6	208.9	
Respiratory disease	640.3	599.7	
Stroke	121.5	112.5	
<b>Complex Patients and High Cost Users, 2015/16</b>			

Mean health care cost per user \$	\$ 3,050	\$ 2,750
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$ 20,600	\$ 22,050
# of patients that are complex	39,960	680,115
% of all patients (health care users) that are complex	7.3%	5.8%
<b>High Cost Users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$ 36,150	\$ 37,700
# of patients that are high cost users	32,275	581,670
% of patients that are high cost users	5.9%	5.0%

### WINDSOR SUB-REGION (101)

- The prevalence rate (per 100) for the population with diabetes was 10.1 (Ontario - 6.8). Windsor sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with high blood pressure was 22.2 (Ontario - 18.1). Windsor sub-region's rate was **significantly higher** than Ontario.
- The mean health care cost per user in Windsor sub-region was \$3,000 (Ontario - \$2,750).
- 8.4% of patients from Windsor sub-region were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the highest percentage of complex patients.
- The mean health care cost per complex patient in Windsor sub-region was \$19,250 (Ontario - \$22,050).
- 5.5% of patients from Windsor sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in Windsor sub-region was \$37,350 (Ontario - \$37,700).



## Chronic Conditions, Complex Patients

Condition	Windsor	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	20.1	17.3	31
Asthma	7.3	7.8	50
Diabetes	10.1	6.8	4
High blood pressure	22.2	18.1	14
Heart disease	6.3	5.0	18

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	33.0	37
Cardiovascular disease	963.2	43
Cerebrovascular disease	139.4	45
COPD	215.9	32
Diabetes	94.1	49
Hypertension	16.6	42
Ischemic heart disease	343.9	39
Lower respiratory disease	251.3	31
Respiratory disease	621.3	37
Stroke	115.5	42

Complex Patients and High Cost Users, 2015/16	Ontario	Ranking*
mean health care cost per user \$	\$3,000	41
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$19,250	66
# of patients that are complex	16,440	
% of all patients (health care users) that are complex	8.4%	2
<b>High Cost Users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$37,350	30.5
# of patients that are high cost users	10,845	
% of patients that are high cost users	5.5%	38

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

#### TECUMSEH LAKESHORE AMHERSTBURG LASALLE SUB-REGION (102)

- The age standardized rate (per 100,000) for hospitalization for asthma was 17.3 (Ontario - 34.3). Tecumseh Lakeshore Amherstburg LaSalle sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 176.2 (Ontario - 133.2). Tecumseh Lakeshore Amherstburg LaSalle sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for hypertension was 10.4 (Ontario - 18). Tecumseh Lakeshore Amherstburg LaSalle sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in Tecumseh Lakeshore Amherstburg LaSalle sub-region was \$2,500 (Ontario - \$2,750).
- 5.9% of patients from Tecumseh Lakeshore Amherstburg LaSalle sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in Tecumseh Lakeshore Amherstburg LaSalle sub-region was \$18,900 (Ontario - \$22,050). It was among the 8 sub-regions with the lowest mean cost per complex patient.
- 4.7% of patients from Tecumseh Lakeshore Amherstburg LaSalle sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in Tecumseh Lakeshore Amherstburg LaSalle sub-region was \$34,950 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Tecumseh Lakeshore Amherstburg LaSalle	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	19.0	17.3	37
Asthma	7.3	7.8	49
Diabetes	5.7	6.8	54
High blood pressure	15.8	18.1	56
Heart disease	5.9	5.0	26

*Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.*

*F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")*

*LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues*

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>		Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	17.3	34.3	71
Cardiovascular disease	1,027.6	916.9	33
Cerebrovascular disease	176.2	133.2	8
COPD	163.1	171.8	48
Diabetes	73.1	100.2	62
Hypertension	10.4	18.0	66
Ischemic heart disease	387.9	314.8	24
Lower respiratory disease	183.0	208.9	53
Respiratory disease	515.4	599.7	64
Stroke	139.3	112.5	14

<b>Complex Patients and High Cost Users, 2015/16</b>		Ontario	Ranking*
Mean health care cost per user \$	\$2,500	\$ 2,750	57
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$18,900	\$ 22,050	71
# of patients that are complex	6,005	680,115	
% of all patients (health care users) that are complex	5.9%	5.8%	43
<b>High Cost Users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$34,950	\$ 37,700	61.5
# of patients that are high cost users	4,805	581,670	
% of patients that are high cost users	4.7%	5.0%	52

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## ESSEX SOUTH SHORE SUB-REGION (103)

- The age standardized rate (per 100,000) for hospitalization for asthma was 22.3 (Ontario - 34.3). **Essex South Shore** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for diabetes was 60.7 (Ontario - 100.2). **Essex South Shore** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for hypertension was 10.3 (Ontario - 18). **Essex South Shore** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Essex South Shore** sub-region was \$3,100 (Ontario - \$2,750).
- 6.7% of patients from **Essex South Shore** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Essex South Shore** sub-region was \$21,300 (Ontario - \$22,050).
- 5.8% of patients from **Essex South Shore** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Essex South Shore** sub-region was \$37,700 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Essex South Shore	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	21.8	17.3	25
Asthma	6.9	7.8	52
Diabetes	6.4	6.8	43
High blood pressure	17.3	18.1	50
Heart disease	7.1	5.0	10

*Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.*

*F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")*

*LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues*

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	22.3	69
Cardiovascular disease	949.0	45
Cerebrovascular disease	151.7	30.5
COPD	218.5	29
Diabetes	60.7	70
Hypertension	10.3	67
Ischemic heart disease	376.4	27
Lower respiratory disease	245.1	34
Respiratory disease	616.8	43
Stroke	118.4	39

Complex Patients and High Cost Users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,100	31.5
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$21,300	46
# of patients that are complex	4,285	
% of all patients (health care users) that are complex	6.7%	18
<b>High Cost Users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$37,700	28
# of patients that are high cost users	3,720	
% of patients that are high cost users	5.8%	35

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## CHATHAM CITY CENTRE SUB-REGION (104)

- The age standardized rate (per 100,000) for hospitalization for asthma was 83.0 (Ontario - 34.3). **Chatham City Centre** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for hypertension was 56.3 (Ontario - 18). **Chatham City Centre** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for stroke was 152.1 (Ontario - 112.5). **Chatham City Centre** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **Chatham City Centre** sub-region was \$3,700 (Ontario - \$2,750). It was among the 8 sub-regions with the highest mean cost per user.
- 7.0% of patients from **Chatham City Centre** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Chatham City Centre** sub-region was \$24,300 (Ontario - \$22,050).
- 7.5% of patients from **Chatham City Centre** sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the highest percentage of high cost users.
- The mean health care cost per high cost user in **Chatham City Centre** sub-region was \$36,100 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Chatham City Centre	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	22.2	17.3	21
Asthma	8.0	7.8	35
Diabetes	9.8	6.8	5
High blood pressure	21.6	18.1	21
Heart disease	5.7	5.0	31

*Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.*

*F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")*

*LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues*

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
AGE STANDARDIZED rate per 100,000			
Asthma	83.0	34.3	2
Cardiovascular disease	1,247.7	916.9	10
Cerebrovascular disease	171.1	133.2	11
COPD	226.0	171.8	26.5
Diabetes	153.6	100.2	11.5
Hypertension	56.3	18.0	1
Ischemic heart disease	469.2	314.8	9
Lower respiratory disease	310.4	208.9	15
Respiratory disease	779.2	599.7	18
Stroke	152.1	112.5	7

Complex Patients and High Cost Users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$3,700	\$ 2,750	8
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$24,300	\$ 22,050	19.5
# of patients that are complex	2,520	680,115	
% of all patients (health care users) that are complex	7.0%	5.8%	15
High Cost Users (Top 5%) #			
Mean health care cost per high cost user \$	\$36,100	\$ 37,700	43
# of patients that are high cost users	2,685	581,670	
% of patients that are high cost users	7.5%	5.0%	3

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

### RURAL KENT SUB-REGION (105)

- The prevalence rate (per 100) for the population with arthritis (14+) was 23.7 (Ontario - 17.3). Rural Kent sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with diabetes was 10.3 (Ontario - 6.8). Rural Kent sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with high blood pressure was 24.2 (Ontario - 18.1). Rural Kent sub-region's rate was **significantly higher** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for hypertension was 10.5 (Ontario - 18). Rural Kent sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in Rural Kent sub-region was \$3,050 (Ontario - \$2,750).
- 6.5% of patients from Rural Kent sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in Rural Kent sub-region was \$22,700 (Ontario - \$22,050).
- 6.5% of patients from Rural Kent sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in Rural Kent sub-region was \$32,250 (Ontario - \$37,700). It was among the 8 sub-regions with the lowest mean cost per high cost user.



## Chronic Conditions, Complex Patients

Condition	Rural Kent	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	23.7	17.3	18
Asthma	8.3	7.8	32
Diabetes	10.3	6.8	3
High blood pressure	24.2	18.1	3
Heart disease	6.0	5.0	23

*Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.*

*F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")*

*LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues*

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
AGE STANDARDIZED rate per 100,000			
Asthma	22.6	34.3	68
Cardiovascular disease	1,015.9	916.9	35
Cerebrovascular disease	154.8	133.2	25
COPD	230.7	171.8	24
Diabetes	89.4	100.2	52
Hypertension	10.5	18.0	65
Ischemic heart disease	391.6	314.8	20
Lower respiratory disease	253.3	208.9	29
Respiratory disease	632.9	599.7	38
Stroke	128.8	112.5	27

Complex Patients and High Cost Users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$3,050	\$ 2,750	36.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$22,700	\$ 22,050	30.5
# of patients that are complex	2,930	680,115	
% of all patients (health care users) that are complex	6.5%	5.8%	27
High Cost Users (Top 5%) #			
Mean health care cost per high cost user \$	\$32,250	\$ 37,700	76
# of patients that are high cost users	2,920	581,670	
% of patients that are high cost users	6.5%	5.0%	21

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## LAMBTON SUB-REGION (106)

- The prevalence rate (per 100) for the population with arthritis (14+) was 23.8 (Ontario - 17.3). **Lambton** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with diabetes was 9.2 (Ontario - 6.8). **Lambton** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with high blood pressure was 23 (Ontario - 18.1). **Lambton** sub-region's rate was **significantly higher** than Ontario.
- The mean health care cost per user in **Lambton** sub-region was \$3,450 (Ontario - \$2,750).
- 7.3% of patients from **Lambton** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Lambton** sub-region was \$22,250 (Ontario - \$22,050).
- 6.8% of patients from **Lambton** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Lambton** sub-region was \$36,000 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Lambton	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	23.8	17.3	15
Asthma	8.0	7.8	36
Diabetes	9.2	6.8	11
High blood pressure	23.0	18.1	10
Heart disease	6.3	5.0	17

*Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.*

*F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")*

*LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues*

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	40.3	24
Cardiovascular disease	974.0	41
Cerebrovascular disease	146.3	36
COPD	191.8	44
Diabetes	116.2	32
Hypertension	18.4	32.5
Ischemic heart disease	304.6	50
Lower respiratory disease	233.2	37
Respiratory disease	814.0	15
Stroke	122.8	35

Complex Patients and High Cost Users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,450	15.5
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$22,250	35.5
# of patients that are complex	7,780	680,115
% of all patients (health care users) that are complex	7.3%	11
<b>High Cost Users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$36,000	44
# of patients that are high cost users	7,305	581,670
% of patients that are high cost users	6.8%	12

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## Human Resources

### Physicians

- In 2016, there were approximately 989 physicians in Erie St. Clair LHIN.
  - This represents the equivalent of approximately 154 physicians for every 100,000 persons in Erie St. Clair LHIN.
  - The number of physicians in Erie St. Clair LHIN increased by over 7% between 2013 and 2016 with higher growth occurring among family medicine physicians compared to specialists.
- Between 2013 and 2016, there was an increase of approximately 50 family physicians in Erie St. Clair LHIN.
  - The majority of the increase in Erie St. Clair LHIN occurred with 37 additional family physicians between 30-64 years of age.
- In 2016, approximately 18% of family physicians in Erie St. Clair LHIN were at or beyond the age of retirement (65 years of age or older).

### Nurses

- In 2016, there were 6996 total nurses in Erie St. Clair LHIN.
- The total number of nurses has increased by 3% between 2013 and 2016,
  - While there was a decrease in the number of Registered Nurses in Erie St. Clair LHIN between 2013 and 2016, there were substantial increases in the number of Registered Practical Nurses (16% increase) and Nurse Practitioners (19% increase) during the same time period.
- In 2016, there were approximately 1,088 nurses for every 100,000 residents of Erie St. Clair LHIN.

### Other Allied Health Professionals

- Between 2013 and 2016, the greatest growth in the number of allied health professionals in Erie St. Clair LHIN was among Midwives (an increase of 3 or approximately 16%) and Pharmacists (an increase of 74 or about 13%).
- There was notable growth (increase of 8 or approximately 7%) in the number of Speech-Language Pathologists in Erie St. Clair LHIN between 2013 and 2016.
- Audiologists and Opticians in Erie St. Clair LHIN experienced 14% reductions in not only their raw numbers (reduction of 5 Audiologists and 8 Opticians) but also in their numbers per capita.

Erie St. Clair LHIN					
Physicians	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Total Family Medicine Physicians</b>					
Number of family medicine physicians	466	487	495	516	10.7%
Rate per 100,000 population	73.0	76.2	77.4	80.3	9.9%
<b>Total Specialists</b>					
Number of specialists	457	455	467	473	3.5%
Rate per 100,000 population	71.6	71.2	73.0	73.6	2.7%
<b>Total Physicians</b>					
Number of total physicians	923	942	962	989	7.2%
Rate per 100,000 population	144.7	147.4	150.4	153.8	6.3%

Family Physicians, by age group - count					
Age <30	7			10	42.9%
Age 30-64	377			414	9.8%
Age 65-74	72			73	1.4%
Age 75+	10			19	90.0%
Grand Total	466			516	10.7%
Age 65+	82			92	12.2%

Family Physicians, by age group – percent					
Age <30	1.5%			1.9%	29.0%
Age 30-64	80.9%			80.2%	-0.8%
Age 65-74	15.5%			14.1%	-8.4%
Age 75+	2.1%			3.7%	71.6%
Age 65+	17.6%			17.8%	1.3%

Erie St. Clair LHIN					
Nurses	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Registered Nurses</b>					
Number of RNs	4,482	4,446	4,415	4,269	-4.8%
Rate per 100,000 population	701.8	695.6	690.1	664.0	-5.4%
<b>Registered Practical Nurses</b>					
Number of RPN nurses	2,208	2,316	2,446	2,566	16.2%
Rate per 100,000 population	345.7	362.4	382.3	399.1	15.4%
<b>Nurse Practitioners</b>					
Number of NP nurses	135	144	155	161	19.3%
Rate per 100,000 population	21.1	22.5	24.2	25.0	18.5%
<b>Total Nurses</b>					
Total Nurse - Number of nurses	6,825	6,906	7,016	6,996	2.5%
Total Nurse - Rate per 100,000 population	1,068.7	1,080.5	1,096.7	1,088.2	1.8%

Erie St. Clair LHIN					
Other Regulated Health Professionals	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Audiologists</b>					
Audiologist - Number	36	33	31	31	-13.9%
Audiologist - Rate per 100,000 population	5.6	5.2	4.8	4.8	-14.5%
<b>Midwives</b>					
Midwife - Number	19	21	22	22	15.8%
Midwife - Rate per 100,000 population	3.0	3.3	3.4	3.4	15.0%
<b>Occupational Therapists</b>					
Occupational Therapist - Number	172	166	167	173	0.6%
Occupational Therapist - Rate per 100,000 population	26.9	26.0	26.1	26.9	-0.1%
<b>Opticians</b>					
Optician - Number	88	82	83	76	-13.6%
Optician - Rate per 100,000 population	13.8	12.8	13.0	11.8	-14.2%
<b>Optometrists</b>					
Optometrist - Number	109	110	108	109	0.0%
Optometrist - Rate per 100,000 population	17.1	17.2	16.9	17.0	-0.7%
<b>Pharmacists</b>					
Pharmacist - Number	563	589	636	637	13.1%
Pharmacist - Rate per 100,000 population	88.2	92.2	99.4	99.1	12.4%
<b>Psychologists</b>					
Psychologist - Number	99	100	100	100	1.0%
Psychologist - Rate per 100,000 population	15.5	15.6	15.6	15.6	0.3%
<b>Speech-Language Pathologists</b>					
Speech-Language Pathologist – Number	114	121	125	122	7.0%
Speech-Language Pathologist - Rate per 100,000 population	17.9	18.9	19.5	19.0	6.3%

## Primary Care

### Primary Care Enrolment

- Over 506,000 Erie St. Clair LHIN residents were enrolled with a PEM as of fiscal year 2016/2017 (76%).
- Among all LHIN residents, more than one-quarter (27%) were enrolled with a Family Health Team under a Family Health Organization.
- There are 26 practices in Erie St. Clair LHIN, with 419 physicians working across the region. There are 9 practices each belonging to FHOs and FHGs, with 111 and 109 physicians respectively.

### Selected Measures from the Health Care Experience Survey

#### Self-reported access to, and satisfaction with, primary care

	Ontario (2017)	LHIN (2017)	Range Across ESC sub-regions (2014-2017)
Percentage who are satisfied with health care in their community	87%	83%	78% to 85%
Percentage with primary care providers (attached patients)	94%	97% <sup>H</sup>	94% to 98%
Percentage who saw their primary care provider within the same day/next day when sick	40%	32%	32% to 43%
Percentage who went to ED for something that could have been treated by primary care provider	42%	46%	24% to 59%
Percentage who found it difficult to access care after-hours without going to an emergency department	53%	54%	43% to 76%
Percentage who went to walk-in clinic in past 12 months	30%	29%	7.6% to 51%
Percentage who went to a walk in clinic for something that could have been treated by provider if they were available	92%	95%	84% to 95%

<sup>H</sup>=significantly higher than the province

<sup>L</sup>=significantly lower than the province

- Eighty-three (83%) percent of Erie St. Clair LHIN were satisfied with health care in their community.
  - The **Rural Kent** sub-region reported only 78% were satisfied with local health care, which was **significantly lower** than the province, as was the **Tecumseh Lakeshore Amherstburg LaSalle** sub-region at 82%.
  - **Lambton** sub-region reported the highest proportion satisfied at 85%.
- In 2017, 97% of adults (aged 16 and older) in Erie St. Clair had a primary care provider. The attachment rate slightly increased since 2013 and represents the **highest** attachment rate among the 14 LHINS.
  - **Lambton** and **Rural Kent** sub-regions were **significantly higher** than the provincial attachment rate (98% and 97%, respectively). **Windsor** sub-region had the lowest attachment rate at 94%, which was still higher than the provincial rate.
- 32% of adults in the Erie St. Clair LHIN were able to see a primary care provider on the same day or next day when they were sick.
  - At 32%, **Lambton** sub-region was **significantly lower** than the provincial proportion.
- 46% of adults in the Erie St. Clair LHIN went to the ED for something that they believed could have been treated by a primary care provider.
  - There was wide variability in percentages across the LHIN who went to the ED for something that could be treated by a primary care provider. **Rural Kent** and **Lambton** sub-regions reported

**significantly higher** proportions compared to the province (59% and 56% respectively), whereas **Tecumseh Lakeshore Amherstburg LaSalle** (28%) and **Windsor** (24%) were **significantly lower** than the province.

- 54% of adults in the Erie St. Clair LHIN found it difficult to access after hours care without going to the ED.
  - **Chatham City Centre**, **Rural Kent**, and **Lambton** reported **significantly higher** proportions of their populations who found it difficult to access after-hours care without going to the ED (68%, 67%, 76%), whereas the **Windsor** sub-region reported a **significantly lower** proportion at 43%.
- 29% of adults in the Erie St. Clair LHIN had gone to a walk-in clinic in the previous 12 months.
  - **Windsor**, **Tecumseh Lakeshore Amherstburg LaSalle**, and **Essex South Shore** reported **significantly higher** proportions of their population who attended a walk-in clinic in the previous 12 months, where **Chatham City Centre**, **Rural Kent**, and **Lambton** reported statistically **significantly lower** proportions of walk-in attendees.
  - 95% went to a walk in clinic for something that they felt could have been treated by a primary care provider if they were available.



## Community Care

- Erie St. Clair LHIN ranks **highest** in CTC\_Community Group Participants Patient Attendances Visits per 1,000 population 0-18 with 261 (province is 54).
- Erie St. Clair LHIN ranks second highest in CTC\_Community Visits-Face to Face Visits per 1,000 population 0-18 with 521 (province is 173).

## Mental Health

### Wait Time for Community Services

- Assertive Community Treatment (ACT) teams and vocational/employment programs had the longest median wait times among the community mental health (MH) services in Erie St. Clair LHIN in 2017/18. With the exception of ACT teams and vocational/employment programs, Erie St. Clair LHN had shorter median wait times than the province for all community MH services in 2017/18.
- Among the substance (SA) services provided in Erie St. Clair LHIN, only community treatment, withdrawal management, day/ evening care and residential treatment had wait times in 2017/18/. The median wait time in this LHIN was 21 days longer than the province for residential treatment and shorter for the remaining services.
- In 2017/18, residential treatment and community day/evening treatment for problem gambling had the longest median wait times for services provided within the Erie St. Clair LHIN. The median wait times for problem gambling residential treatment and community day/evening treatment were greater than the provincial medians, while the median wait time for community treatment in Erie St. Clair was less than that for Ontario.

### Mental Health and Substance Abuse Emergency Department Visits

- In 2016/17, there were 13,548 unscheduled ED visits for Erie St. Clair residents where the main problem was a MH/SA condition. In total, there were 16,569 visits with a MH/SA condition in any of the diagnostic fields.
- Between 2013/14 and 2016/17, there was 21.0% growth in visits with a MH/SA main problem diagnosis (higher than the province's value of 20.9%) and 16.4% growth in visits with a MH/SA condition in any diagnostic field (lower than the province's value of 21.1%).
- The MH/SA ED visit rate per 1,000 population for Erie St. Clair LHIN residents was higher than the provincial value (21.1 compared to 19.2). The main problem visit rate increased by 20.1% between 2013/14 and 2016/17.
  - By sub-region, **Tecumseh Lakeshore Amherstburg LaSalle** had the 6<sup>th</sup> lowest ED visit rate (tied with **Niagara North West** at 11.1 per 1,000 population) where the main problem was a MH/SA condition.
  - Where a MH/SA condition was in any of the diagnostic fields, **Tecumseh Lakeshore Amherstburg LaSalle** had the 6<sup>th</sup> lowest rate (13.6 per 1,000 population).
- Visits with a MH/SA main problem diagnosis accounted for 4.5% of all ED visits for Erie St. Clair LHIN residents.
- In 2016/17, there were 202 ED visits of Erie St. Clair residents for opioid overdose. Of those, 39.1% were accidental – the second lowest proportion in the province.
- The crude rate of ED visits for opioid overdose in FY2016/17 for Erie St. Clair residents was 3.1, lower than the provincial value (3.5). Between 2013/14 and 2016/17, there was a 5.6% growth in the visit rate for opioid overdose for all Erie St. Clair residents, the third lowest growth in the province.

## Unscheduled emergency department utilization for mental health and substance abuse conditions, Erie St. Clair LHIN and Ontario residents, 2016/17

Measure	Erie St. Clair LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient<sup>†</sup></b>				
Main problem visits	13,548	268,514	21.0%	
% of total ED visits	4.5%	4.3%	-	
Any problem visits	16,569	338,260	16.4%	
% of total ED visits	5.5%	5.5%	-	
Main problem, visits per 1,000	21.1	19.2	20.1%	
Any problem, visits per 1,000	25.8	24.2	15.5%	
ED visits for opioid overdose	202	4,831	6.3%	
% of visits that were accidental	39.1%	50.1%	-	
Crude rate per 10,000 population	3.1	3.5	5.6%	

<sup>†</sup>LHIN of patient results for Ontario exclude out-of-province residents

<sup>‡</sup> Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

### Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility

- In 2016/17, there were 13,356 unscheduled ED visits in Erie St. Clair LHIN hospitals, where the main problem was a MH/SA condition. 3.0% of these visits were made by homeless individuals.
- There were 2,972 admissions and 3,138 active cases who received treatment in adult designated MH units in Erie St. Clair LHIN hospitals. There were 2,982 discharges from these units with the total days of discharge patients equal to 53,858 days. The mean length of stay in Erie St. Clair LHIN MH units was 18.1 days, shorter than the Ontario mean (24.9 days). Residents from outside the LHIN accounted for 6.6% of the active cases treated in Erie St. Clair LHIN.
  - Between 2013/14 and 2016/17, active cases, admissions and discharges increased in Erie St. Clair LHIN hospitals by 8.7%, 9.5% and 10.2%, respectively. The total days for discharged cases decreased by 3.3%.
- Bipolar and depressive disorders (38.1%) and schizophrenia and psychotic disorders (31.7%) accounted for the largest proportions of active cases in Erie St. Clair LHIN hospitals in 2016/17. Compared with the provincial values, Erie St. Clair had larger proportions of active cases for schizophrenia and psychotic disorders, bipolar and depressive disorders, and all other disorders, and smaller proportions of active cases for the remaining SCIPP groups.
- There were 3,182 active cases, 3,000 admissions and 2,999 discharges for Erie St. Clair LHIN residents from Ontario adult designated MH units. Mean length of stay for Erie St. Clair LHIN residents was lower than the province (21.1 days compared to 24.8 days). 7.9% of Erie St. Clair LHIN resident active cases received treatment in hospitals outside the LHIN. Compared with the provincial rate, Erie St. Clair LHIN residents had higher rates of active cases, admissions, and discharges per 100,000 population age 15+.
  - By sub-region, **Chatham City Centre** had the 4<sup>th</sup> highest mean length of stay (45.2 days).
  - **Lambton** sub-region had the 8<sup>th</sup> highest crude rate of active cases at 786.4 per 100,000 population. This sub-region also had the 7<sup>th</sup> highest crude rate of admissions (755.2) and discharges (754.3) per 100,000 population among the 76 sub-regions.
- Active cases, admissions, discharges, total days and the associated rates increased for Erie St. Clair LHIN residents between 2013/14 and 2016/17.

**Adult designated mental health unit utilization, Erie St. Clair LHIN hospitals and residents, 2016/17**

<b>Measure</b>	<b>Erie St. Clair LHIN</b>	<b>Ontario</b>	<b>% change 2013/14 – 2016/17</b>	<b>Comments<sup>‡</sup></b>
<b>LHIN of patient</b>				
Active cases	3,182	64,523	6.2%	
Admissions	3,000	60,197	7.2%	
Discharges	2,999	60,607	7.9%	
Total Days	63,263	1,504,690	0.3%	
Mean Length of Stay	21.1	24.8	-	
% Outflow Active Cases	7.9%	-	-	
Active Cases per 100,000 (age 15+)	589.6	548.5	4.9%	
Admission per 100,000 (age 15+)	555.9	511.7	6.0%	
Discharges per 100,000 (age 15+)	555.7	515.2	6.6%	
<b>SCIPP Categories - % of total active cases</b>				
Short Stay	18.3%	27.4%	-	
Schizophrenia and other psychotic disorders	29.9%	27.0%	-	
Neurocognitive disorders	1.8%	3.1%	-	
Bipolar and depressive disorders	38.1%	29.6%	-	
Personality disorders	2.2%	3.0%	-	
Feeding and eating disorders	0.5%	0.4%	-	
Substance Use disorders	5.0%	5.5%	-	
Other disorders	4.0%	4.0%	-	
<b>LHIN of hospital</b>				
Active cases	3,138	64,738	8.7%	
Admissions	2,972	60,383	9.5%	
Discharges	2,982	60,795	10.2%	
Total Days (discharged patients only)	53,858	1,512,754	-3.3%	
Mean Length of Stay	18.1	24.9	-	
% Inflow Active Cases	6.6%	-	-	

‡Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

## Surgery & Diagnostic Imaging

### Day Surgery and Cardiac Catheterization Utilization

#### Day Surgery and Cardiac Catheterization Visits

- In 2016/17, there were 67,477 day surgery and ambulatory cardiac catheterization visits to Erie St. Clair LHIN hospitals. Residents from outside the LHIN accounted for 1.1% of the visits, second lowest of all LHINs.
- Between 2013/14 and 2016/17, there was a decrease of 1.5% in Erie St. Clair LHIN hospital's day surgery and cardiac catheterization visits.
- There were 76,060 day surgery and ambulatory cardiac catheterization visits for Erie St. Clair LHIN residents. Both the number and rate of visits remained stable between 2013/14 and 2016/17.
- In 2016/17, 12.2% of these visits occurred in hospitals outside the LHIN.
- Erie St. Clair LHIN residents had 118.3 day surgery and cardiac catheterization visits per 1,000 population. This rate was higher than the provincial rate of 93.9.

#### Day surgery and ambulatory cardiac catheterization visits, Erie St. Clair LHIN and Ontario, 2016/17

Measure	LHIN	Comments	Ontario†	LHIN % change 2013-14 - 2016/17	Range within LHINs	Range within ESC sub-regions
<b>LHIN of hospital</b>						
Visits	67,477		1,322,943	-1.5%	27,727 - 158,077	
% Inflow visits	1.1%	2 <sup>nd</sup> lowest			0.7% - 58.4%	
<b>LHIN of patient</b>						
Total population	642,917		13,982,984	0.7%	235,148 - 1,893,948	
Visits	76,060		1,313,103	0.2%	28,401 - 157,644	6,121 - 23,641
% Outflow visits	12.2%				3.0% - 39.0%	6.0% - 25.7%
Visits per 1,000 population	118.3		93.9	-0.6%	66.8 - 151.0	102.2 - 142.1
- age 0-17 years	34.0		22.2		13.9 - 38.4	
- age 18-44 years	64.4		46.5		34.8 - 85.5	
- age 45-64 years	155.5		125.3		93.9 - 183.0	
- age 65-79 years	265.8		239.9		176.5 - 318.4	
- age 80+ years	184.9	2 <sup>nd</sup> lowest	202.7		138.5 - 260.4	

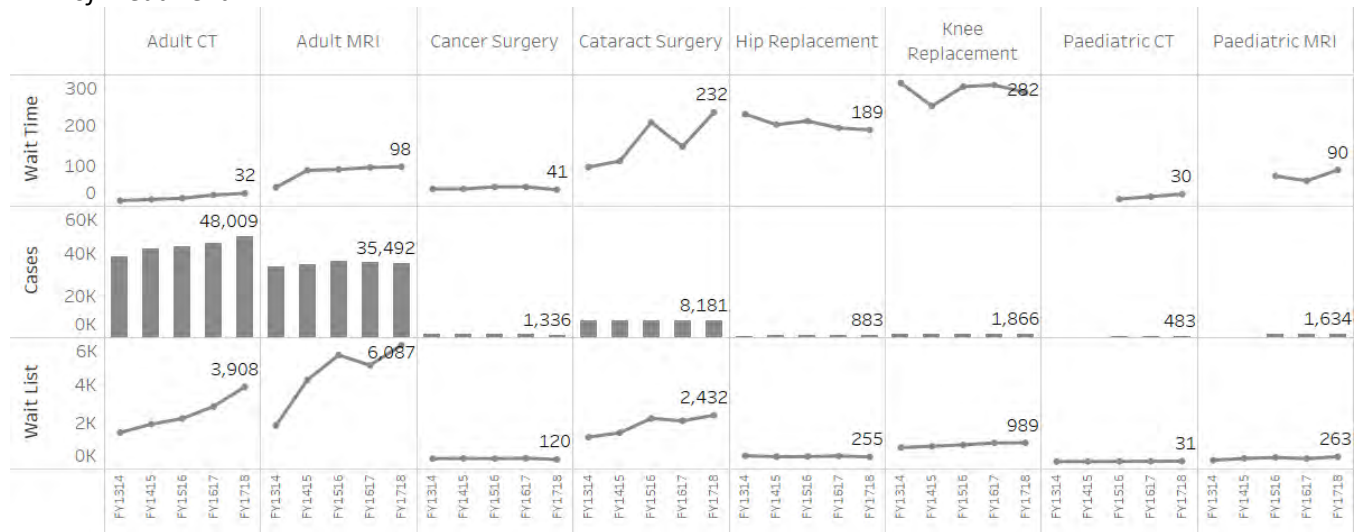
†LHIN of patient results for Ontario exclude out-of-province residents

## Surgical & Diagnostic Imaging Wait Times

### Erie St. Clair LHIN Priority Procedures:

#### Wait 2 90<sup>th</sup> Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

##### LHIN of Treatment

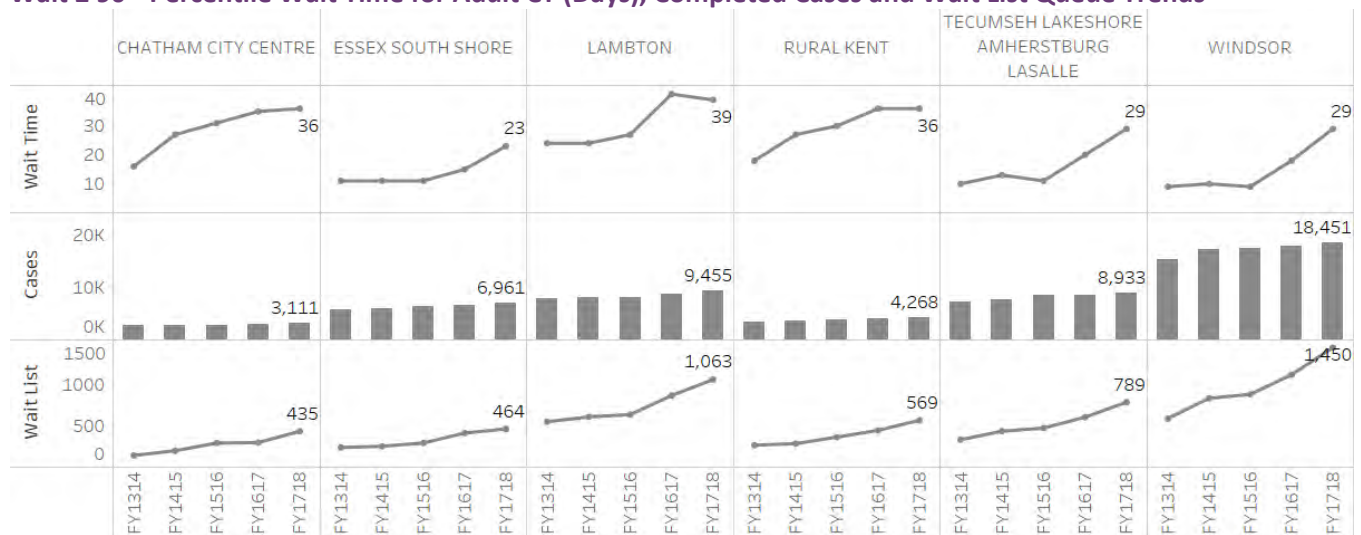


## Adult CT

- There were 48,009 adult CT scans completed in FY 2017-18; 2,738 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 32 days, 4 days longer than the previous fiscal.
- In 2017/18, hospitals in the Erie St. Clair LHIN had the **shortest** wait time for adult CT scans. [of only 13 reporting]
- The wait list queue at the start of FY 2017-18 was 3,908 patients; 1,018 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Adult CT (Days), Completed Cases and Wait List Queue Trends



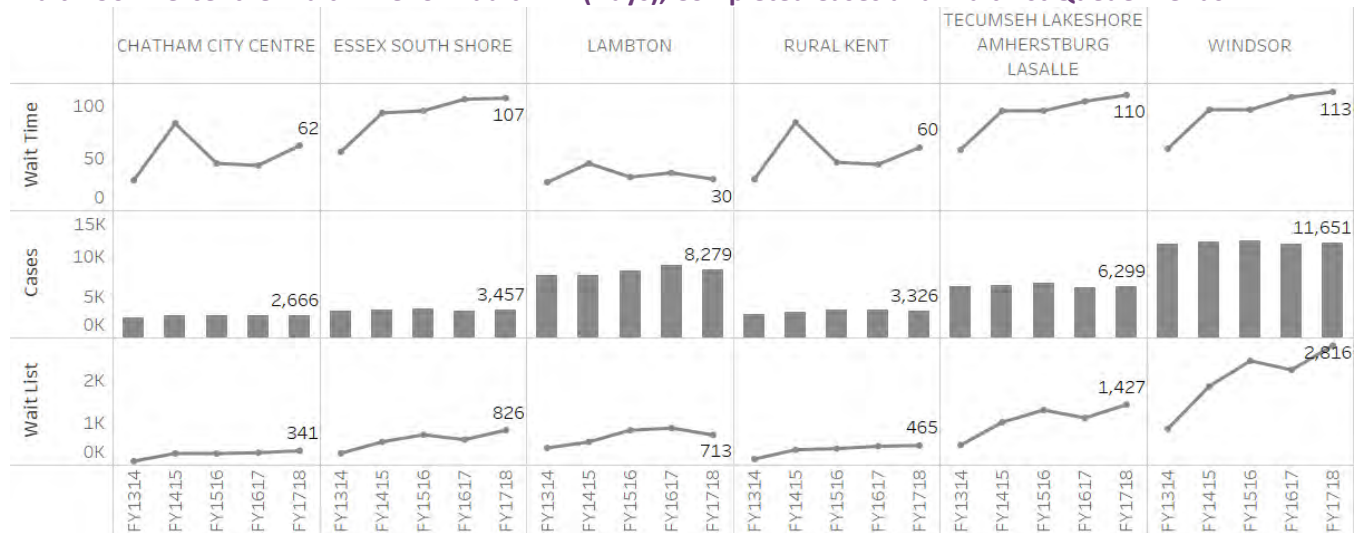
- Erie St. Clair LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 23 days to 39 days

## Adult MRI

- There were 35,492 adult MRI scans completed in FY 2017-18; 413 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 98 days, 2 days longer than the previous fiscal.
- In 2017/18, hospitals in the Erie St. Clair LHIN had the 6<sup>th</sup> longest wait time for adult MRI scans. [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 6,087 patients; 1,051 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Adult MRI (Days), Completed Cases and Wait List Queue Trends



- Erie St. Clair LHIN sub-region (of Patient Residence) variation in FY 2017-18: 30 days to 113 days.
- Lambton sub-region wait time of 30 days was the **shortest** across the province for this period.

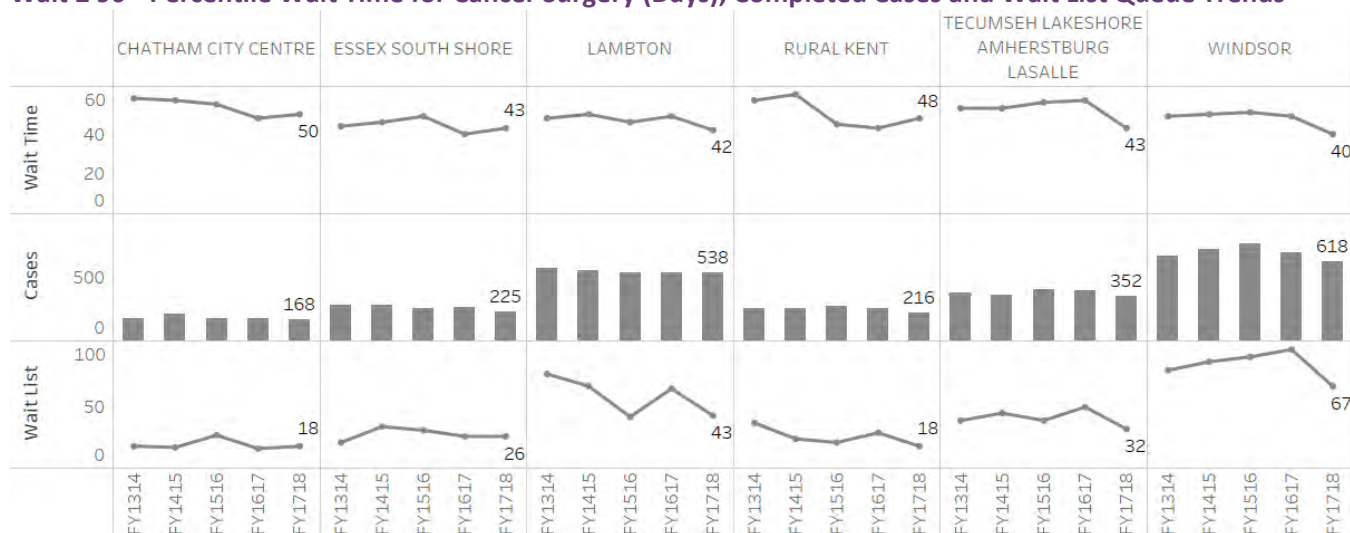


## Cancer Surgery

- There were 1,336 cancer surgeries completed in FY 2017-18; 127 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 41 days, 7 days shorter than the previous fiscal.
- In 2017/18, hospitals in the Erie St. Clair LHIN tied with three other LHINs for the 2<sup>nd</sup> shortest wait time for cancer surgery.
- The wait list queue at the start of FY 2017-18 was 120 patients; 70 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Cancer Surgery (Days), Completed Cases and Wait List Queue Trends



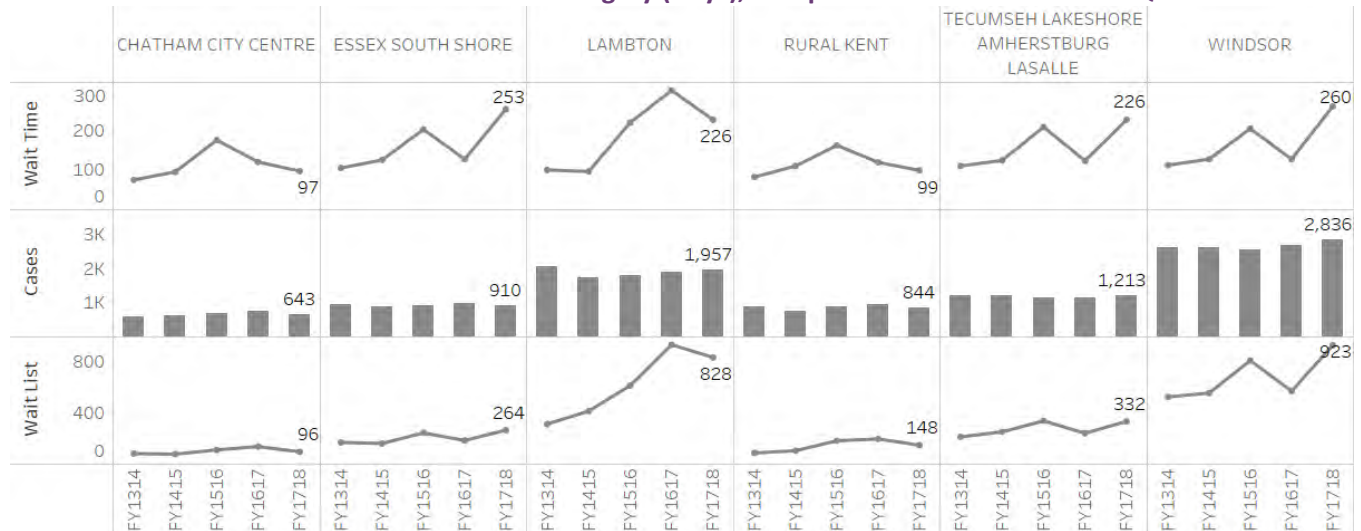
- Erie St. Clair LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 40 days to 50 days.

## Cataract Surgery

- There were 8,181 cataract surgeries completed in FY 2017-18; 26 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 232 days, 84 days longer than the previous fiscal.
- In 2017/18, hospitals in the Erie St. Clair LHIN had the 7<sup>th</sup> longest wait time for cataract surgery.
- The wait list queue at the start of FY 2017-18 was 2,432 patients; 296 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Cataract Surgery (Days), Completed Cases and Wait List Queue Trends



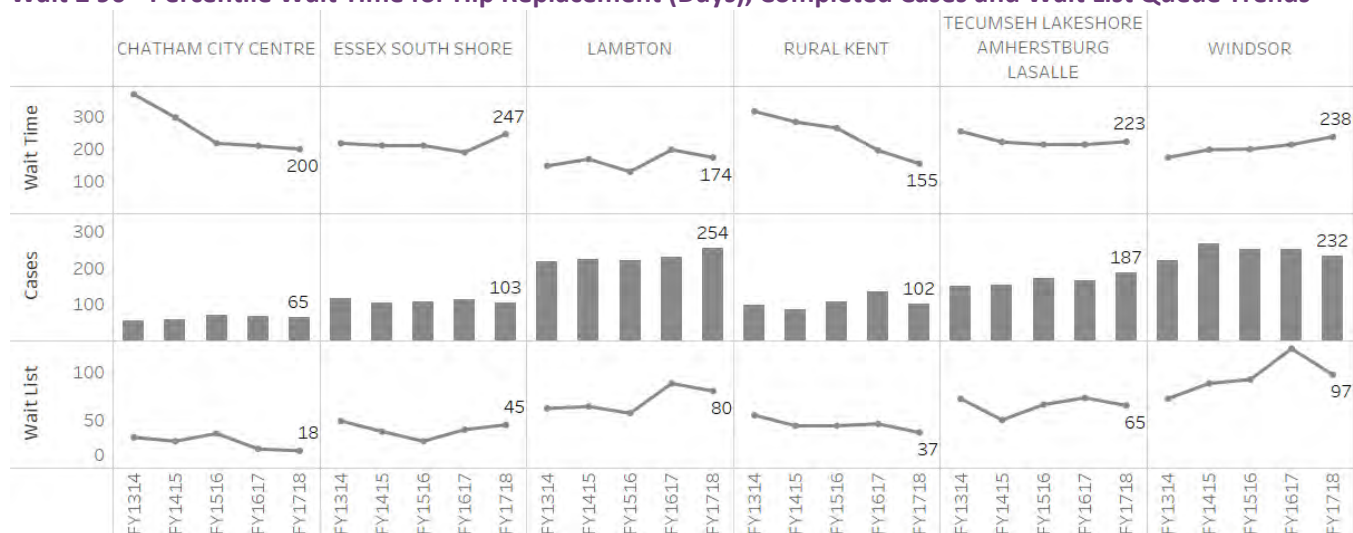
- Erie St. Clair LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 97 days to 260 days.
- Chatham City Centre sub-region wait time of 97 days was the **shortest** across the province for this period.

## Hip Replacement

- There were 883 hip replacement surgeries completed in FY 2017-18; 7 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 189 days, 5 days shorter than the previous fiscal.
- In 2017/18, hospitals in the Erie St. Clair LHIN had the 6<sup>th</sup> shortest wait time for hip replacement surgery.
- The wait list queue at the start of FY 2017-18 was 255 patients; 51 fewer more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Hip Replacement (Days), Completed Cases and Wait List Queue Trends



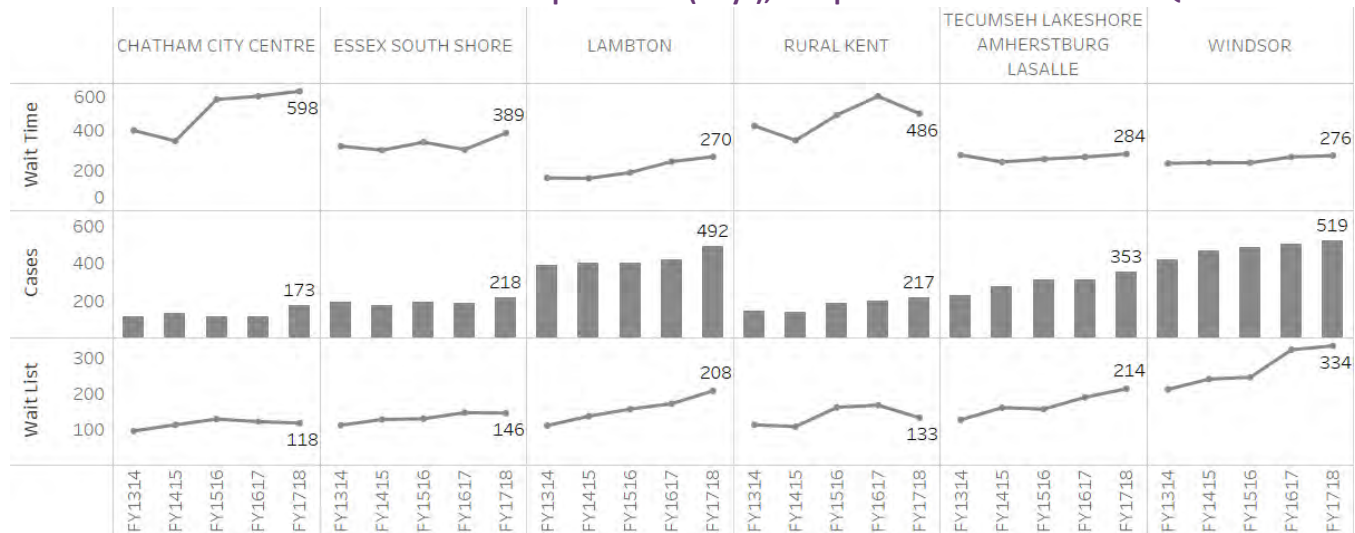
- Erie St. Clair LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 155 days to 247 days.

## Knee Replacement

- There were 1,866 knee replacement surgeries completed in FY 2017-18; 270 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 282 days, 18 days shorter than the previous fiscal.
- In 2017/18, hospitals in the Erie St. Clair LHIN had had 6<sup>th</sup> longest wait time for knee replacement surgery.
- The wait list queue at the start of FY 2017-18 was 989 patients, 6 more than the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Knee Replacement (Days), Completed Cases and Wait List Queue Trends



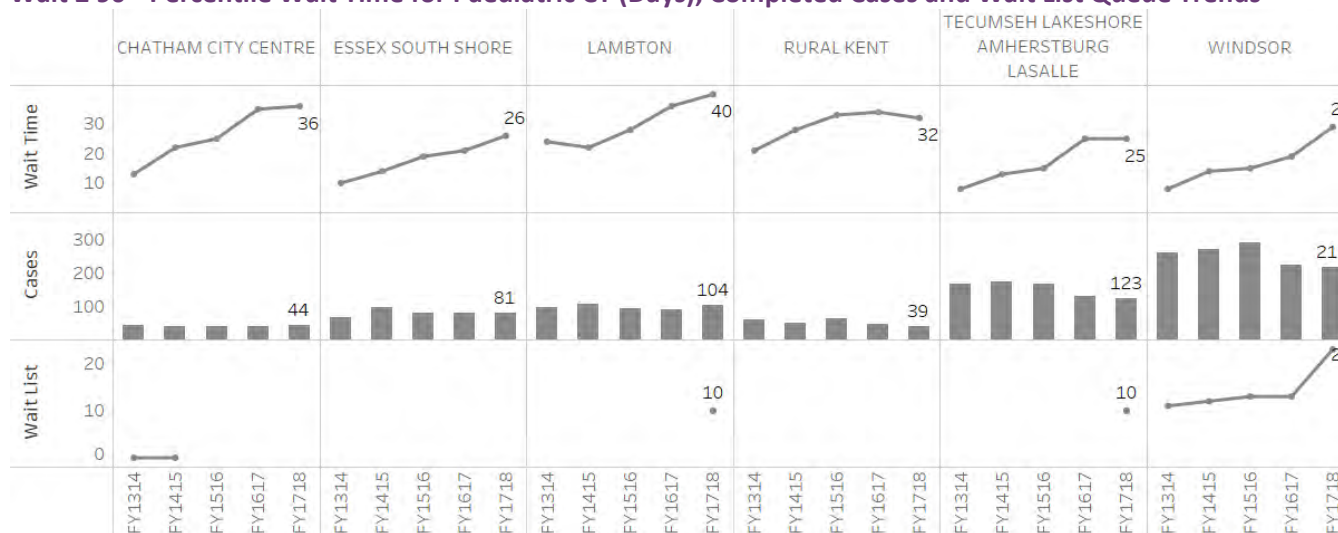
- Erie St. Clair LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 270 days to 598 days.

### Paediatric CT

- There were 483 paediatric CT scans completed in FY 2017-18; 27 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 30 days, 6 days longer than the previous fiscal.
- In 2017/18, hospitals in the Erie St. Clair LHIN had the 6<sup>th</sup> longest wait time for paediatric CT scans. [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 31 patients, 9 more queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90<sup>th</sup> Percentile Wait Time for Paediatric CT (Days), Completed Cases and Wait List Queue Trends



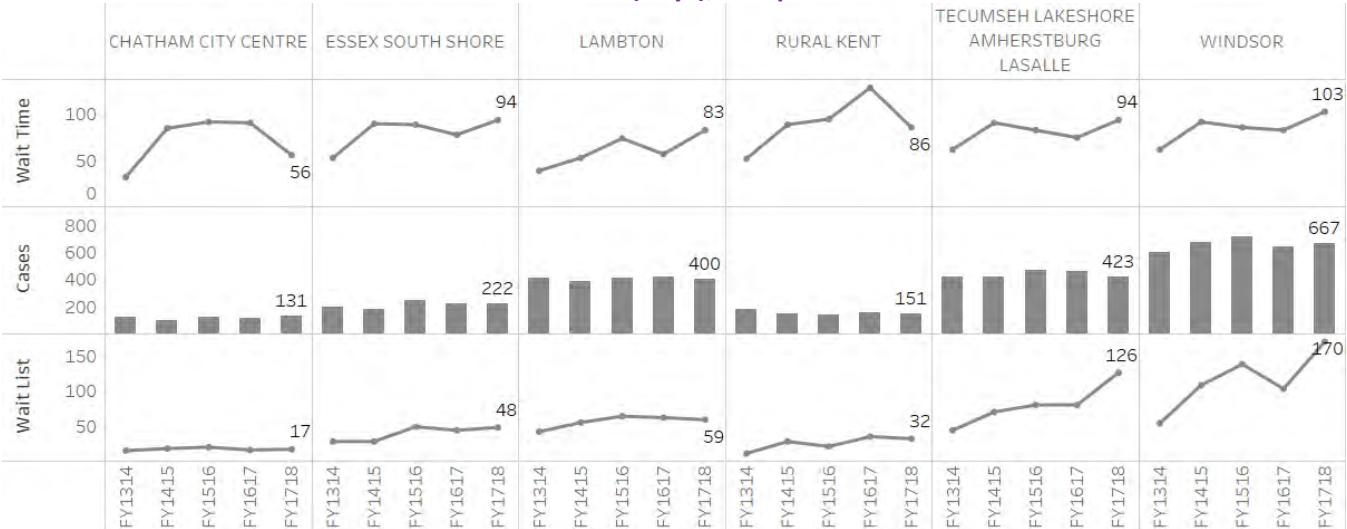
- Erie St. Clair LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 25 days to 40 days.

# Paediatric MRI

- There were 1,634 paediatric MRI scans completed in FY 2017-18; 69 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 90 days, 27 days longer than the previous fiscal.
- In 2017/18, hospitals in the Erie St. Clair LHIN had the 5<sup>th</sup> longest wait time for paediatric MRI scans. [of only 13 reporting]
- The wait list queue at the start of FY 2017-18 was 263 patients; 96 more queued compared to the previous fiscal

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Paediatric MRI (Days), Completed Cases and Wait List Queue Trends



- Erie St. Clair LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 56 days to 103 days
- Chatham City Centre sub-region wait time of 56 days was the **shortest** across the province for this period

## Oncology and Dialysis

### Ambulatory Oncology Utilization

- In 2016/17, there were 36,108 ambulatory oncology visits to hospital(s) in Erie St. Clair LHIN.
- Since 2014/15, visits in Ontario have increased by 9%. The number of visits to Erie St. Clair LHIN hospitals has increased by 8% and visits for Erie St. Clair LHIN residents has increased by 7%.
- In 2016/17, the rate of ambulatory oncology visits per 1,000 population for residents of Erie St. Clair LHIN is 82.5 (Ontario - 75.7). Rates for age groups 0-17 and 18-44 years are among the 4 highest in Ontario. Within Erie St. Clair LHIN sub-regions, residents in:
  - Age group 0-17 years, **Windsor** (9.7) and **Essex South Shore** (9.6) have one of highest visit rates in Ontario (5.0).
  - Age group 18-44 years, **Essex South Shore** (20.7) has one of highest visit rates while **Chatham City Centre** (8.0) has one of the lowest visit rates in Ontario (15.9).
  - Age group 45-64 years, **Chatham City Centre** (131.9) one of the highest visit rates in Ontario (106.7).
- Approximately one-third (32%) of ambulatory oncology visits by Erie St. Clair LHIN residents went to hospitals outside of Erie St. Clair LHIN. Most of the outflow visits were to hospitals in South West LHIN from residents living in **Chatham City Centre**, **Rural Kent**, and **Lambton**.
- 0.4% of ambulatory oncology visits to Erie St. Clair LHIN hospitals were by non-Erie St. Clair LHIN residents.

Ambulatory Oncology	Erie St. Clair	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory oncology visits	36,108	1,059,358	4 <sup>th</sup> lowest	Increase	
% Inflow oncology visits	0.4%				
<b>LHIN of patient</b>					
Ambulatory oncology visits	53,022	1,057,888		Increase	1,149 -15,620
% Outflow oncology visits	32.1%				
Visits per 1,000 population	82.5	75.7		Increase	70.4 -96.0
Visit rate/1,000 population age 0-17 years	7.1	5.0	Highest		2.9 -9.7
Visit rate/1,000 population age 18-44 years	17.5	15.9			8.0 -20.7
Visit rate/1,000 population age 45-64 years	106.9	106.7			95.6 -131.9
Visit rate/1,000 population age 65-79 years	260.7	255.4			216.3 -288.7
Visit rate/1,000 population age 80+ years	176.4	191.6			130.6 -231.7



Ambulatory Oncology - Sub-Region	Erie St. Clair	Windsor	Tecumseh Lakeshore Amherstburg LaSalle	Essex South Shore	Chatham City Centre	Rural Kent	Lambton	Erie St. Clair LHIN, SR unassigned
<b>LHIN of hospital</b>								
Ambulatory oncology visits	36,108							
% Inflow oncology visits	0.4%							
<b>LHIN of patient</b>								
Ambulatory oncology visits~	53,022	15,620	8,382	6,601	3,981	5,024	12,265	1,149
% Outflow oncology visits	32.1%	4.1%	3.7%	5.8%	57.4%	62.9%	78.4%	56.2%
Visits per 1,000 population	82.5	70.4	74.2	87.4	92.5	81.5	96.0	
Visit rate/1,000 population age 0-17 years	7.1	9.7	6.1	9.6	2.9	4.3	4.6	
Visit rate/1,000 population age 18-44 years	17.5	18.2	16.8	20.7	8.0	15.8	15.4	
Visit rate/1,000 population age 45-64 years	106.9	96.4	95.6	101.8	131.9	106.9	120.9	
Visit rate/1,000 population age 65-79 years	260.7	216.3	249.4	288.7	282.4	256.4	279.3	
Visit rate/1,000 population age 80+ years	176.4	160.7	231.7	195.3	153.9	130.6	179.4	

### Ambulatory Dialysis Utilization

- In 2016/17, there were 58,902 ambulatory dialysis visits to hospitals in Erie St. Clair (ESC) LHIN.
- Since 2014/15, visits in Ontario have increased by 3%. The number of visits to Erie St. Clair LHIN hospitals has increased by 5% and visits for Erie St. Clair LHIN residents has increased by 7%.
- In 2016/17, the rate of ambulatory dialysis visits per 1,000 population for residents of Erie St. Clair LHIN is 96.3 (Ontario - 90.4). Within Erie St. Clair LHIN, residents in:
  - Age group 18-44 years, **Chatham City Centre** (46.5) has one of the 8 highest visit rates in Ontario (21.8).
  - Age group 45-64 years, **Tecumseh Lakeshore Amherstburg LaSalle** (41.5) has of the 8 lowest visit rates in Ontario (105.3).
  - Age group 80+ years, **Windsor** (677.2) has one of the highest visit rates in Ontario (426.7).
- 5% of ambulatory dialysis visits by Erie St. Clair LHIN residents were to hospitals outside of Erie St. Clair LHIN.
  - Residents in **Lambton** had a 20% outflow of ambulatory dialysis visits.
- 0.2% of ambulatory dialysis visits to Erie St. Clair LHIN hospitals were by non-Erie St. Clair LHIN residents.

*Note: Ambulatory dialysis visit volumes for residents in age group 0-17 are low to none across all sub-regions. Caution should be used when interpreting visit rates in this age group.*



Ambulatory Dialysis	Erie St. Clair	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory dialysis visits	58,902	1,269,794		Increase	
% Inflow dialysis visits	0.2%				
<b>LHIN of patient</b>					
Ambulatory dialysis visits	61,906	1,264,676		Increase	1,026 -27,722
% Outflow dialysis visits	5.1%				
Visits per 1,000 population	96.3	90.4		Increase	65.3 -125.0
Visit rate/1,000 population age 0-17 years	0.0	1.2			0.0 -0.0
Visit rate/1,000 population age 18-44 years	22.8	21.8			9.0 -46.5
Visit rate/1,000 population age 45-64 years	93.4	105.3			41.5 -135.2
Visit rate/1,000 population age 65-79 years	283.5	285.3			150.8 -355.9
Visit rate/1,000 population age 80+ years	462.6	426.7			164.5 -677.2

Ambulatory Dialysis - Sub-Region	Erie St. Clair	Windsor	Tecumseh Lakeshore Amherstburg LaSalle	Essex South Shore	Chatham City Centre	Rural Kent	Lambton	Erie St. Clair LHIN, SR unassigned
<b>LHIN of hospital</b>								
Ambulatory dialysis visits	58,902							
% Inflow dialysis visits	0.2%							
<b>LHIN of patient</b>								
Ambulatory dialysis visits~	61,906	27,722	7,950	7,331	4,331	5,207	8,339	1,026
% Outflow dialysis visits	5.1%	0.2%	0.5%	0.9%	12.5%	14.9%	19.5%	5.2%
Visits per 1,000 population	96.3	125.0	70.4	97.0	101.6	84.4	65.3	
Visit rate/1,000 population age 0-17 years	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Visit rate/1,000 population age 18-44 years	22.8	24.5	9.0	16.5	46.5	30.1	25.0	
Visit rate/1,000 population age 45-64 years	93.4	135.2	41.5	81.9	96.9	106.4	72.2	
Visit rate/1,000 population age 65-79 years	283.5	355.9	280.7	330.6	327.4	238.6	150.8	
Visit rate/1,000 population age 80+ years	462.6	677.2	624.3	434.8	164.5	172.3	212.0	

\*Ranking: Top or bottom 4 ranking in the province, compared to other LHINs.

^ Trend: "Increase/decrease" when there is a change more than 1%, otherwise, "stable"

~ There are some records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables with the LHIN name but as SR unassigned.

## Home Care

### Home Care Patient Referrals

- In 2017/18, there were 39,221 active home care patient referrals in the Erie St. Clair LHIN.
  - The Windsor sub-region had the largest proportion of Erie St. Clair LHIN patient referrals with 12,405.

### Active Patient Referrals 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
Chatham City Centre	3,282	3,262	3,390	
Essex South Shore	3,947	4,184	4,172	
Lambton	8,057	8,433	8,989	
Rural Kent	4,189	4,247	4,347	
Tecumseh Lakeshore Amherstburg LaSalle	5,002	5,277	5,342	
Windsor	12,106	12,263	12,405	
Out of LHIN Region	213	224	233	
Unknown Region	748	569	343	
ESC Total	37,544	38,459	39,221	

\*Rank based on 2017/18 active patient referrals

### Home Care Referral Rate

- In 2017/18, Erie St. Clair LHIN's utilization rate was higher than Ontario's (60.5 compared to 48.2).
  - Within the LHIN, the utilization rate ranged from 47.3 referrals per 1,000 in Tecumseh Lakeshore Amherstburg LaSalle to 78.7 in Chatham City Centre.
  - Across Ontario's sub-regions, the utilization rates for Chatham City Centre (78.7), Rural Kent (70.5), and Lambton (70.3) were the second, sixth and seventh highest rates in the province.

### Referrals (per 1,000 population) 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
Chatham City Centre	75.9	75.8	78.7	2 <sup>nd</sup> highest
Essex South Shore	52.8	55.4	55.2	
Lambton	63.2	66.0	70.3	7 <sup>th</sup> highest
Rural Kent	67.6	68.9	70.5	6 <sup>th</sup> highest
Tecumseh Lakeshore Amherstburg LaSalle	44.7	46.7	47.3	
Windsor	55.2	55.3	55.9	
ESC Total	58.7	59.8	60.5	

\*Rank based on 2017/18 utilization rates

### Home Care Services

- In Erie St. Clair LHIN, there were 666,220 home care visits and 1,475,633 service hours in 2017/18.
- The rate of home care visits was 1,028.5 per 1,000 population and the rate of service hours was 2,278.0 per 1,000 population.
- Erie St. Clair had the 2<sup>nd</sup> highest speech language pathology visits per 1,000 population.
- The following sub-regions had among the highest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - Windsor had the 8<sup>th</sup> highest rate of nursing visits.
  - Chatham City Centre had the 7<sup>th</sup> highest rate of occupational therapy visits.
  - Chatham City Centre had the 3<sup>rd</sup> highest rate of total visits rate.
  - Chatham City Centre had the 2<sup>nd</sup> highest rate of nursing visits.
  - Chatham City Centre had the 2<sup>nd</sup> highest rate of speech language therapy visits.
  - Lambton had the 8<sup>th</sup> highest rate of nursing shift hours.
  - Lambton had the 8<sup>th</sup> highest rate of occupational therapy visits.
  - Lambton had the 4<sup>th</sup> highest rate of speech language therapy visits.
  - Windsor had the 8<sup>th</sup> highest rate of nursing visits per 1,000 population within all sub-regions.
- Between 2014/15 and 2017/18 there was little change in total visits and a decrease in total hours of 4.2% in Erie St. Clair LHIN. During this period case management visits increased by 26.3% and nursing shift hours increased by 11.1%.
- Between 2014/15 and 2017/18 case management visit rate increased by 24.6%.

## Summary of Home Care Services by Type, Erie St. Clair LHIN, 2017/18

	Erie St. Clair LHIN Residents	Ontario Residents*	Comments	LHIN % Change 2014/15 to 2017/18	Range across ESC sub-regions**
<b>Service Visits</b>					
<b>All Visits†</b>	666,220	11,528,751		-0.6%	59,008-243,921
Nursing Visit	448,440	7,539,458		-6.7%	37,853-173,645
Physiotherapy	31,131	738,685		-7.8%	2,992-8,587
Occupational Therapy	31,352	615,215		-0.9%	3,223-9,648
Social Work	2,496	56,973		-34.7%	218-921
Nutrition and Dietetic	1,474	47,949	2 <sup>nd</sup> Lowest	-21.3%	77-459
Speech Language Pathology	17,179	273,735		1.7%	1,480-5,644
Case Management	126,145	2,211,107		26.3%	9,521-45,226
<b>Service Hours</b>					
<b>All Hours</b>	1,475,633	34,396,919		-4.2%	88,281-543,656
Nursing Shift	105,703	2,366,020		11.1%	3,993-34,343
Personal Support Work and Homemaking	1,332,193	31,319,568		-7.8%	81,407-502,654
Respite	37,737	711,331		n/a	2,881-10,486
<b>Service Visits per 1,000 population</b>					
<b>All Visits per 1,000 population †</b>	1,028.5	810.2		-1.9%	791.3-1,425.7
Nursing Visit	692.3	529.8		-7.9%	518.9-977.5
Physiotherapy	48.1	51.9		-9.0%	37.0-69.5
Occupational Therapy	48.4	43.2		-2.2%	30.9-76.2
Social Work	3.9	4.0		-35.6%	2.2-6.7
Nutrition and Dietetic	2.3	3.4		-22.3%	1.6-3.3
Speech Language Pathology	26.5	19.2	2 <sup>nd</sup> Highest	0.3%	19.1-46.0
Case Management	194.7	155.4		24.6%	171.5-221.1
<b>Service Hours per 1,000 population</b>					
<b>All Hours</b>	2,278.0	2,417.3		-5.4%	1,889.7-2,522.1
Nursing Shift	163.2	166.3		9.6%	68.9-268.7
Personal Support Work and Homemaking	2,056.5	2,201.0		-9.0%	1,779.3-2,265.6
Respite	58.3	50.0		n/a	41.1-92.8

\*Not all LHINs offer the same services or report case management services in the same manner.

\*\*Service rates per 1,000 population are calculated using 2017/18 service levels divided by 2016 population estimates from the Ministry of Finance. Typically 2017 population estimates would be used but they were not available at the sub-region level at time of calculation.

†Includes visits for respiratory, psychology, and 'other' service types (not shown), which are not consistently reported/available in all LHINs.

n/a – not applicable due to significant changes in funding and recording

## Palliative Care

### Services Received at Home by Palliative Patients FY 2016/2017

	Provincial Ranking	LHIN	Range Across ESC sub-regions
Percent of patients who received palliative home visits(home servicers or physician) in the last 90 days of life	6	36%	31% to 42%
Percent of patients who received palliative home servicers in the last 90 days of life	10	28%	27% to 31%
Percent of patients who had physician home visits in the last 90 days of life	4	26%	21% to 32%
Percent of patients who receive palliative home services who died in hospital	3	20%	13% to 24%
Percent of palliative care patients discharged home from hospital with the discharge status "Home with Support"	1	78%	63% to 92%
Mean days spent at home/residence in last 6 months of life	12	163 days	161 days to 167 days

*†Ranking in the province, compared to other LHINs.*

### Interpretation

- In 2016/2017, the percent of patients in Erie St. Clair LHIN who received palliative home visits in the last 90 days of life matches the provincial value of 36%.
  - Within the Erie St. Clair LHIN, the **Windsor** sub-region reported the lowest percentage within the LHIN at 31% and **Chatham City Centre** had the highest percentage at 42%.
- In 2016/2017, the percent of patients in Erie St. Clair LHIN who received palliative home servicer visits in the last 90 days of life was slightly higher than the province (28% vs 25%, respectively).
  - Within the Erie St. Clair LHIN, three sub-regions reported that 27% of patients received palliative home servicer visits in the last 90 days of life (**Windsor**, **Chatham City Centre**, **Lambton**).
- In 2016/2017, the percent of patients in Erie St. Clair LHIN who received physician visits in the last 90 days of life (26%) was slightly lower than the province (28%).
  - The **Windsor** sub-region reported a lower percentage of patients who received physician home visits (21%) compared to the other Erie St. Clair sub-regions, which the **Chatham City Centre** had the highest percentage across the LHIN at 32%.
- Across Ontario, Erie St. Clair LHIN reported the third lowest percentage of patients who received palliative home services who died in hospital (20%), which is lower than the provincial percentage of 25%.
  - There appears to be a wide variation of percentages of patients who received palliative care who died in hospital across Erie St. Clair sub-regions, from 13% in **Chatham City Centre** to 24% in **Rural Kent** and **Lambton**, respectively.
- Across LHINs, Erie St. Clair appears to have the lowest percent of palliative care patients discharged home with "Home with Supports" status, with a mean of 78% in 2016/2017 compared to Ontario's 85%.

- Within Erie St. Clair, the sub-regions widely vary from 63% in **Lambton** to 92% in **Chatham City Centre**. Unlike the other sub-regions, **Lambton**'s percentage seems to be decreasing at 5.6% per year, since 2013/2014.
- Erie St. Clair had the 3<sup>rd</sup> highest mean number of days at home among palliative patients in the last 6 months across all LHINs at 163 days, compared to the provincial number at 160 days.
  - Erie St. Clair sub-regions are close in mean number of days that palliative patients spend at home in their last 6 months, ranging from 161 days in **Windsor** to 167 days in **Chatham City Centre**.

#### **Palliative Hospital System Measures, Erie St. Clair (FY 2016/17)**

	<b>Provincial Ranking</b>	<b>LHIN</b>	<b>Range Across the Sub-Regions</b>
Percent of patients who had one or more unplanned ED visits in the last 30 days of life	7	54%	48% - 59%
Percent of patients who had two or more unplanned ED visits in the last 30 days of life	9	15%	13% - 19%
Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days	2	16%	9% - 21%
Percent of people who die in hospital (all hospital settings and acute only)	3	46%	36% - 54%
Percent of people who die in acute hospital	5	41%	33% - 46%
Percent of patients who had two or more acute inpatient admissions in the last 30 days of life	6	5%	4% - 6%

### LHIN Comparison

- None of the Erie St. Clair LHIN's palliative hospital system indicators were significantly different from those of the province.
  - For percent of patients who had one or more unplanned ED visits in the last 30 days of life, **Lambton** sub-region was **significantly lower** than the province. **Windsor** sub-region was **significantly higher** than the province.
  - For percent of patients who had two or more unplanned ED visits in the last 30 days of life, **Lambton** sub-region was **significantly lower** than the province. The following sub-regions were **significantly higher** than the province: **Windsor**, **Essex South Shore**, and **Rural Kent**.
  - For percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days, **Lambton** sub-region was **significantly lower** than the province.
  - For percent of people who die in hospital (all hospital settings and acute only), **Essex South Shore**, **Chatham City Centre**, and **Lambton** sub-regions were **significantly lower** than the province.
  - For percent of people who died in acute hospital, **Chatham City Centre** was **significantly lower** than the province.

### Change Over Time

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of -1% was observed across the Erie St. Clair LHIN ranking 12<sup>th</sup> provincially.
  - Across sub-regions, **Essex South Shore** (0%) and **Tecumseh Lakeshore Amherstburg LaSalle** (-2%) were observed highest and lowest, respectively.
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of 0% was observed across the Erie St. Clair LHIN ranking 8<sup>th</sup> provincially.
  - Across sub-regions, **Lambton** (5%) and **Windsor** (-2%) were observed highest and lowest, respectively.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, a mean annual growth rate of -3% was observed across the Erie St. Clair LHIN ranking 12<sup>th</sup> provincially.
  - Across sub-regions, **Lambton** (12%) and **Essex South Shore** (-27%) were observed highest and lowest, respectively.
- For percent of people who die in hospital (all hospital settings and acute only), a mean annual growth rate of -3% was observed across the Erie St. Clair LHIN ranking 13<sup>th</sup> provincially.
  - Across sub-regions, **Windsor** (-1%) and **Chatham City Centre** (-8%) were observed highest and lowest, respectively.
- For percent of people who die in acute hospital, a mean annual growth rate of -2% was observed across the Erie St. Clair LHIN ranking 10<sup>th</sup> provincially.
  - Across sub-regions, **Windsor** (-2%) and **Essex South Shore** (-5%) were observed highest and lowest, respectively.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, a mean annual growth rate of -1% was observed across the Erie St. Clair LHIN ranking 9<sup>th</sup> provincially.
  - Across sub-regions, **Lambton** (11%) and **Essex South Shore** (-15%) were observed highest and lowest, respectively.

## Emergency Department

### Emergency Department Utilization

- In 2016/17, there were 288,075 ED visits to Erie St. Clair LHIN hospitals, a decrease of 4.2% from 2013/14. In the same time-period, the number of ED visits in the province increased by 6.5%.
- Erie St. Clair's crude ED visit rate of 470.5 ED visits per 1,000 population was 7<sup>th</sup> highest in the province, slightly higher than the provincial rate (442.2). This represented a 4.3% decline in crude visit rate in the LHIN from 2013/14 during which time the provincial crude visit rate climbed by 3.0%.
- Age adjusted ED visit rates per 1,000 population were highest for seniors 80+ at 910 visits per 1,000 population, following by seniors aged 65-79 (524 visits / 1,000 population), adults aged 18-44 (486 visits per 1,000 population), adults aged 45-64 years (403 visits per 1,000 population) while children aged 0-17 had the lowest usage rate in LHIN at 397 visits per 1,000 population, or less than 40% of the highest user age group.
  - **Tecumseh Lakeshore Amherstburg LaSalle** residents had the lowest ED visit rate of Erie St. Clair's 6 sub-regions, at 236 visits per 1000 population and was also the lowest sub-region in the province.
  - **Lambton** sub-region had the highest crude ED visit rate at 683 visits per 1,000 population.
  - Overall, 2 of Erie St. Clair's 6 sub-regions had crude ED visit rates below the provincial value, while 4 had rates above the provincial value.
- Between 2013/14 and 2016/17 the number of Erie St. Clair LHIN residents visiting the ED with lower acuity levels (CTAS IV and V) declined 29.2% to 90,955 visits. During this same time-period, visits by Ontario residents with CTAS IV and V declined 2.2%.
- Between 2013/14 and 2016/17 the number of visits with CTAS III increased by 17.5% and CTAS I & II increased by 8.2%, while provincially these numbers increased by 9.4% and 15.8% respectively.
- Overall, Erie St. Clair LHIN ranked 8<sup>th</sup> highest in the province in proportion of ED visits by residents that were lower acuity (30.1% for Erie St. Clair, and 33.5% for the province).
  - 3 out of 6 of Erie St. Clair's sub-regions had a lower proportion of ED visits with lower acuity (CTAS IV and V) than the province.
  - **Windsor** had the lowest proportion of ED visits with lower acuity of the LHIN's 6 sub-regions, at 16.7%, while **Lambton** had the highest at 42.0%.
  - 2 of Erie St. Clair's sub-regions, **Windsor** and **Tecumseh Lakeshore Amherstburg LaSalle**, had among the lowest proportions of lower acuity visits by residents of all sub-regions in the province, ranking 1<sup>st</sup> and 4<sup>th</sup> lowest respectively.
- The most common causes for ED visits for by Erie St. Clair LHIN residents were diseases or disorders of the digestive system, diseases or disorders of the ear, nose or throat, and diseases or disorders of the skin & breast and accounted for 9.7%, 8.6%, and 8.5% of ED visits by Erie St. Clair LHIN residents respectively.
- Follow-up examinations and other non-emergent conditions ranked 4<sup>th</sup> as a cause of ED visits and accounted for 6.3% of ED visits by Erie St. Clair LHIN residents.
- 19.0% of the patients who visited ED in Erie St. Clair LHIN hospitals arrived via ambulance in FY16/17, as compared to 15.6% for the province.
- Erie St. Clair ranked 2<sup>nd</sup> in the province for proportion of visits arriving by ambulance.
  - The proportion of ED visits that arrived by ambulance ranged from a low of 11.5% in **Lambton** sub-region to a high of 28.4% in **Windsor**.
  - **Windsor** and **Tecumseh Lakeshore Amherstburg LaSalle** sub-regions had the highest % ED visits arriving by ambulance of any sub-regions in the province.
- 9.6% of the patients who visited ED in Erie St. Clair LHIN hospitals were admitted in FY16/17, as compared to 9.8% for the province.



- The proportion of ED visits that resulted in a patient being admitted to hospital ranged from a low of 6.3% in **Rural Kent** sub-region to a high of 13.7% in **Windsor**.
- **Tecumseh Lakeshore Amherstburg LaSalle** and **Windsor** sub-regions had among the highest % ED visits resulting in hospital admission of any sub-regions in the province, ranking 4<sup>th</sup> and 7<sup>th</sup> respectively.
- 6.5% of the patients who visited ED in Erie St. Clair LHIN hospitals left without completing treatment in FY16/17, as compared to 3.9% for the province. Erie St. Clair ranked 1<sup>st</sup> in the province in visits that left without completing treatment.
- 2.2% of ED visits to Erie St. Clair LHIN hospitals were by patients who did not reside in Erie St. Clair LHIN (inflow). This compares to 6.9% of ED visits by Erie St. Clair LHIN residents that were accessed in other LHINs (outflow).

#### Top 10 Reasons for Emergency Department Visits by LHIN, 2016/17

Leading CACS groups, by LHIN of patient	Erie St. Clair	
	#	% of total visits
(B128) Disease or Disorder Digestive System	29,485	9.7%
(B112) Disease or Disorder Ear, Nose or Throat	25,907	8.6%
(B132) Disease or Disorder Skin & Breast	25,777	8.5%
(B187) Follow-up Examination and Other Non Emergent Condition	19,134	6.3%
(B122) Other Disease or Disorder Cardiac System	16,910	5.6%
(B136) Disease or Disorder Musculoskeletal and Connective Tissue	16,833	5.6%
(B116) Disease or Disorder Respiratory System	15,141	5.0%
(A002) Left without being seen or Triage and not seen	15,121	5.0%
(B005) Other Condition with Acute Admission/Transfer	14,227	4.7%
(B180) Contusion, Dislocation, Nerve & Other Soft Tissue Injury	12,212	4.0%

Measure—LHIN of Hospital	Erie St. Clair		Ontario	
	#	LHIN % change 2013/14-2016/17	#	Ontario % change 2013/14-2016/17
Visits	288,075	-4.2%	6,312,121	6.5%
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	66,191	7.6%	1,284,741	15.9%
III (urgent)	137,861	18.1%	2,876,687	9.6%
IV & V (less urgent/non urgent)	83,950	-31.2%	2,128,914	-2.0%
<b>% visits by CTAS level†</b>				
I & II (resuscitation/emergent)	23.0%		20.4%	
III (urgent)	47.9%		45.6%	
IV & V (less urgent/non urgent)	29.1%		33.7%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	19.0%		15.6%	
% of visits that were admitted	9.6%		9.8%	
% of visits that left without completing treatment	6.5%		3.9%	
<b>% Inflow visits</b>	2.2%			

Measure—LHIN of Patient	Erie St. Clair		Ontario	
	#	LHIN % change 2013/14-2016/17	#	Ontario % change 2013/14-2016/17
Visits	302,500	-3.6%	6,183,151	6.4%
ED visit rate/1,000 population	470.5	-4.3%	442.2	3.0%
<b>Age-specific ED visit rates per 1,000 population</b>				
ED visit rate, age 0-17 years	397		429	
ED visit rate, age 18-44 years	486		411	
ED visit rate, age 45-64 years	403		388	
ED visit rate, age 65-79 years	524		516	
ED visit rate, age 80+ years	910		913	
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	68,294	8.2%	1,265,237	15.8%
III (urgent)	143,109	17.5%	2,825,385	9.4%
IV & V (less urgent/non urgent)	90,955	-29.2%	2,070,962	-2.2%
<b>% visits by CTAS level</b>				
I & II (resuscitation/emergent)	22.6%		20.5%	
III (urgent)	47.3%		45.7%	
IV & V (less urgent/non urgent)	30.1%		33.5%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	18.7%		15.8%	
% of visits that were admitted	9.7%		9.9%	
% of visits that left without completing treatment	6.3%		3.8%	
% Outflow visits	6.9%			

**ED Visit Utilization Summary, by sub-region of Patient Residence, 2016/17**      **Erie St. Clair LHIN**

	Windsor	Tecumseh Lakeshore Amherstburg LaSalle	Essex South Shore	Chatham City Centre	Rural Kent	Lambton	LHIN	Ontario
<b>Sub-Region of Patient Residence</b>								
Visits	84,944	26,661	35,479	28,232	34,538	87,323	302,500	6,183,151
ED visit rate/1,000 population	383	236	470	656	560	683	470.5	442
% Outflow to other LHINs	2.8%	3.3%	2.4%	3.6%	12.6%	11.5%	6.9%	
<b>Age-specific ED visit rates per 1,000 population</b>								
ED visit rate, age 0-17 years	243	161	361	662	547	729	397	429
ED visit rate, age 18-44 years	380	214	507	758	580	755	486	411
ED visit rate, age 45-64 years	372	201	395	502	494	532	403	388
ED visit rate, age 65-79 years	452	366	519	603	577	646	524	516
ED visit rate, age 80+ years	832	783	914	1031	815	1029	910	913
<b># visits by CTAS level</b>								
# CTAS Level I & II visits	27397	8837	8767	5801	6585	9669	68,294	12715
# CTAS Level III visits	43280	13113	16761	12425	14344	40952	143,109	20741
# CTAS Level IV & V visits	14228	4699	9942	10002	13601	36634	90,955	13353
<b>% visits by CTAS level</b>								
I & II (resuscitation/emergent)	32.3%	33.1%	24.7%	20.5%	19.1%	11.1%	22.6%	20.5%
III (urgent)	51.0%	49.2%	47.2%	44.0%	41.5%	46.9%	47.3%	45.7%
IV & V (less urgent/non urgent)	16.7%	17.6%	28.0%	35.4%	39.4%	42.0%	30.1%	33.5%
<b>Other visit characteristics</b>								
% of visits that arrived by ambulance	28.4%	27.3%	17.6%	14.1%	11.7%	11.5%	18.7%	15.8%
% of visits that were admitted	12.3%	13.7%	9.5%	8.6%	6.3%	7.7%	9.7%	9.9%
% of visits that left without completing treatment	9.2%	6.3%	6.8%	6.4%	4.8%	3.9%	6.3%	3.8%

### Emergency Department Performance

- Overall total ED volumes were 278,497 in fiscal year 2017/18 in Erie St. Clair LHIN, which decreased by 7% since fiscal 2013/14.
- Erie St. Clair LHIN had the **highest** proportion of CTAS 5 ED admissions (2%) of all 14 LHINs in fiscal year 2017/18.
- In 2017/18, Erie St. Clair LHIN had the **lowest** ED LOS for admitted patients (90<sup>th</sup> percentile) at 22 hours, and the **lowest** time to inpatient bed (90<sup>th</sup> percentile) at 14 hours.
- In fiscal year 2017/18, 90<sup>th</sup> Ambulance offload times had doubled (increased by 100%) since fiscal year 2013/14.
- 90<sup>th</sup> percentile ED length of stay had increased from 7 hours in fiscal year 2013/14 to 9 hours in fiscal year 2017/18.
- Non-admitted low acuity volumes had decreased by 39% since fiscal year 2013/14, but non-admitted high acuity visits had increased by 17% during the same period.

## Emergency department visits, Erie St. Clair LHIN

Measure	Fiscal Year					Range across sites, FY 17/18
	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	
All emergency department visits						
ED Volumes (All)	300,595	300,497	295,135	288,075	278,497	17,527 - 58,260
Ambulance Offload Time - 90th Percentile (mins)	26	39	46	44	52	11 - 88
Time to PIA - 90th percentile	4	4	4	4	4	2 - 6
% with Time to PIA <= 2 Hours	72%	68%	66%	67%	65%	47% - 91%
Consult Request to Arrival - 90th Percentile	2	1	1	2	2	0 - 5
% of Consults with Consult Request to Arrival <= 2 Hrs	92%	92%	93%	91%	90%	73% - 100%
Time to Disposition (All) - 90th Percentile	7	7	8	8	8	3 - 11
ED LOS - 90th Percentile	7	7	8	8	9	4 - 12
Non-admitted low acuity ED visits						
ED Volumes - Non-Admitted Low Acuity	119,375	110,265	100,417	83,042	73,215	6,833 - 19,158
% Within Target of 4 Hrs - Non-Admitted Low Acuity	91%	90%	90%	89%	87%	78% - 96%
Time to Disposition for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	5	3 - 6
ED LOS for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	4	3 - 6
Non-admitted high acuity ED visits						
ED Volumes - Non-Admitted High Acuity	150,960	159,854	165,238	177,335	176,747	9,930 - 41,612
% Within Target of 8 Hrs - Non-Admitted High Acuity	94%	94%	93%	93%	92%	86% - 98%
Time to Disposition for Non-Admitted High Acuity - 90th Percentile	8	8	8	8	8	3 - 10
ED LOS for Non-Admitted High Acuity - 90th Percentile	7	7	7	7	7	4 - 9
Admitted ED visits						
ED Volumes - Admitted	29,988	30,248	29,345	27,656	28,500	173 - 8,762
Admission Rate - CTAS 1	55%	52%	51%	51%	53%	10% - 72%
Admission Rate - CTAS 2	24%	24%	23%	22%	22%	3% - 28%
Admission Rate - CTAS 3	10%	10%	9%	8%	8%	1% - 11%
Admission Rate - CTAS 4	2%	2%	2%	1%	1%	0% - 3%
Admission Rate - CTAS 5	1%	2%	2%	1%	2%	0% - 4%
Time to Disposition for Admitted - 90th Percentile	11	11	11	11	12	6 - 14
ED LOS for Admitted - 90th Percentile	23	24	25	26	22	9 - 26
% Within Target of 8 Hrs - Admitted	56%	55%	50%	44%	46%	31% - 89%
Time to Inpatient Bed - 90th Percentile	17	18	18	19	14	4 - 21

## Acute Care

### Acute Care Utilization by Residents of the Erie St. Clair LHIN

#### Acute Separations

- In 2016/17, there were 53,049 acute separations (discharges), 280,651 acute days, and 321,594 total days (including acute and alternate level of care days) for Erie St. Clair LHIN residents in Ontario hospitals.
- The acute separation rate for Erie St. Clair LHIN residents was 83 separations per 1,000 residents in 2016/17, but varied substantially by sub-region of patient residence.
  - Within the Erie St. Clair LHIN, rates were the lowest for residents of the [Tecumseh Lakeshore Amherstburg LaSalle](#) sub-region and highest for residents of [Chatham City Centre](#). From 2013/14 to 2016/17, the overall acute separation rate for Erie St. Clair LHIN residents increased by 0.5%.
  - Across the province, [Chatham City Centre](#) had the 8<sup>th</sup> lowest volume of separations by LHIN of patient (4,259).

#### Total Days

- The rate of acute days for Erie St. Clair LHIN residents was 437 acute days per 1,000 residents in 2016/17.
  - Rates were the lowest for residents of the [Tecumseh Lakeshore Amherstburg LaSalle](#) sub-region (383) and highest for [Lambton](#) (567) in 2016/17.

#### Length of Stay

- The mean total length of stay (including acute days and days waiting for an alternate level of care) for Erie St. Clair LHIN residents was 6.1 days, while the mean acute length of stay was 5.3 days in 2016/17.

#### HIG Weight

- The Ontario HBAM Inpatient Grouper (HIG) (similar to CMG+) aggregates acute care separations with similar resource use and clinical characteristics based on most responsible diagnosis and/or principal intervention. The HIG weight is a relative cost value that reflects the resources consumed during each acute care stay. The mean HIG weight for Erie St. Clair LHIN residents remained constant between 2014/15 and 2016/17 at 1.55 and was the same as the provincial value (1.55).
- The top 3 HIGs accounting for the highest proportion of acute care days for Erie St. Clair LHIN residents in 2016/17 were: 196-heart failure without coronary angiogram, 138-viral/unspecified pneumonia, and 654-other/unspecified sepsis.

## Acute Care Hospital Utilization (Excluding ALC) LHIN of Patient, Erie St. Clair LHIN, 2016/17

	Erie St. Clair LHIN Residents	Ontario Residents*	Rank among LHINs	Range across ESC sub-regions**
<b>Acute Care Measures</b>				
Total Population	642,917	13,982,984		43,061 – 221,862
Acute Separations	53,049	1,028,979		4,259 – 17,497
Acute Separation Rate per 1,000 Population	83	74		63 - 99
Acute Days	280,651	5,455,693		21,685 – 94,853
Acute Days Rate per 1,000 Population	437	390		328 – 522
Total Days	321,594	6,477,528		23,689 – 112,693
Total Days Rate per 1,000 Population	500	463		383 – 567
Mean Acute LOS	5.3	5.3		5.0 – 5.5
Mean Total LOS	6.1	6.3		5.6 – 6.4
Mean HIG Weight	1.55	1.55		—
<b>Leading HIGs (Acute Care Days)†</b>				
(196) Heart Failure w/o Coronary Angiogram	7,997	175,995		592 – 2,676
(138) Viral/Unspecified Pneumonia	6,463	119,810		499 – 1,853
(654) Other/Unspecified Sepsis	6,098	88,667		437 – 2,209

\* Ontario residents exclude Out-of-province

\*\* Excludes values for patients in “unassigned sub-region” from this LHIN. LHIN totals include patients in unassigned sub-region.

† Leading HIGs include Out-of-province for Ontario Values

### Acute Care Utilization for Erie. St. Clair LHIN Facilities

- There were 45,365 acute separations, 231,820 acute days, and 272,338 total days at Erie St. Clair LHIN hospitals in 2016/17.

### Separations

- Separations remained stable between 2013/14 and 2016/17. During this same period, for Ontario hospitals overall, separations increased by 3.8%

### Acute Days

- Acute days remained stable between 2013/14 and 2016/17. Acute days increased by 2.2%, for Ontario hospitals overall, during this same period.
- Mean acute length of stay at hospitals in the Erie St. Clair LHIN is 5.1 days. This is lower than the provincial result of 5.3 days.



### Total Days

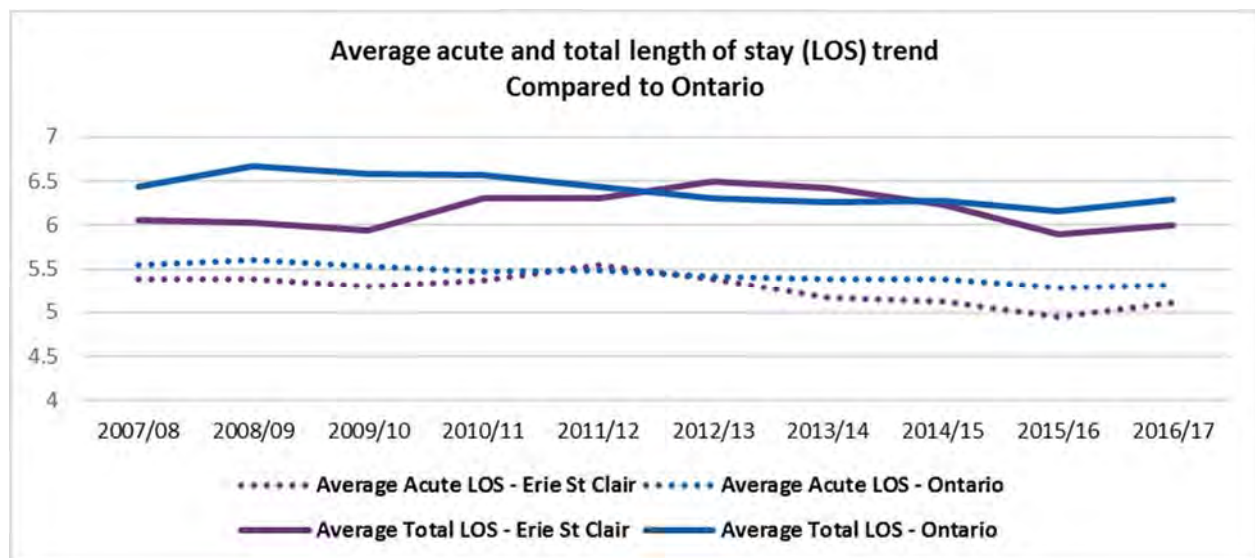
- Total days decreased by 5.9% between 2013/14 and 2016/17. This was the **largest** percentage decrease among all LHINs. Overall Ontario hospitals had an increase of 4.2% of total days during this period.
- Mean total length of stay for this LHIN was 6.0 days. This is lower than the mean total length of stay for Ontario, which was 6.3 days.

### Ontario HBAM Group (HIG) Weight

- The mean HIG weight for Erie St. Clair LHIN hospitals in 2016/17 of 1.44 was lower than the provincial value of 1.55.

### Acute care hospital utilization, Erie St. Clair LHIN, 2016/17

Measure	Erie St. Clair LHIN	Ontario hospitals	Comments	LHIN % change 2013/14 - 2016/17	Range within LHINs
Acute separations	45,365	1,041,308		0.5%	26,295 - 159,315
Total days	272,338	6,542,800		-5.9%	193,259 - 1,050,391
Mean total LOS	6.0	6.3			5.0 - 7.3
Acute days	231,820	5,518,912		-0.7%	142,875 - 917,167
Mean acute LOS	5.1	5.3			4.5 - 5.8
Mean HIG weight	1.44	1.55			1.23 - 1.94



## Acute Care Inflow/Outflow

### Inflow:

- 1.4% of hospital separations from Erie St. Clair LHIN hospitals were by non-Erie St. Clair LHIN residents.
- This was the **lowest** proportion of inflow among all LHINs.

### Outflow

- 15.6% of separations for Erie St. Clair LHIN residents were from hospitals outside Erie St. Clair LHIN.

### Inflow - Outflow, Erie St. Clair LHIN, 2016/17

Measure	Erie St. Clair LHIN	Ontario Hospitals	Comments	Range across ESC sub-regions <sup>†</sup>
Acute separations, LHIN of hospital	45,365	1,041,322		3,587 – 15,805
Acute separations, LHIN of patient	53,049	1,041,322		4,259 – 17,497
% inflow	1.4%		<b>Lowest</b>	NA
% outflow	15.6%			9.7% - 27.1%

<sup>†</sup>Excludes unassigned sub-region

## Post-Acute Care

### Inpatient Rehabilitation Utilization

#### Rehabilitation Admissions

- The number of total rehabilitation admissions to Erie St. Clair hospitals, including both general admissions and special admissions, was 2,386 in FY 16/17, an increase of 13.2% from FY 13/14.
  - The number of general rehabilitation admissions was 1,287 in FY 16/17, a decrease of 12.7% from FY 13/14.
  - The number of special rehabilitation admissions was 1,099 in FY 16/17, an increase of 73.9% from FY 13/14.
- The number of total rehabilitation admissions of Erie St. Clair residents was 2,455 in FY 16/17, an increase of 12.6% from FY 13/14.

#### Active Cases and Discharges

- In FY 16/17, the number of active cases was 3,696 while the number of discharges was 2,392.

#### Inpatient Days

- The number of total inpatient days was 55,931 in FY 16/17.
- The mean length of stay at the LHIN hospitals was 23.4 days.
- By sub-region of patient residence:
  - Windsor residents had the longest length of stay at 27.1 days.
  - Lambton residents had the shortest length of stay at 20.0 days.

#### Admission Rate

- The number of admissions per 100,000 adults (age 18+) was 475.4 in FY 16/17, an increase of 10.9% from FY 13/14.
  - Age group 18-44 years had the lowest admission rate, 46.9 per 100,000 population.
  - Age group 80+ years had the highest admission rate, 3,642.6 per 100,000 population.
- By sub-region of patient residence:
  - Chatham City Centre had the highest admission rate at 390.1.
  - Tecumseh Lakeshore Amherstburg LaSalle had the lowest admission rate at 184.1.

#### Active Case Rate

- The number of active cases per 1,000 population age 18+ was 726.0.

#### Discharge Rate

- The number of discharges per 1,000 population age 18+ was 475.6.

#### Leading Rehabilitation Group

- The 5 leading rehabilitation groups that contributed to the total admissions in FY 16/17 were:
  - Other disabilities accounted for 598 admissions or 24.4% of the total admissions.
  - Fracture of lower extremity accounted for 558 admissions or 22.7 % of the total admissions.
  - Stroke accounted for 425 admissions or 17.3% of the total admissions.
  - Other orthopaedic accounted for 134 admissions or 5.5% of the total admissions.
  - Replacement of lower extremity accounted for 120 admissions or 4.9% of the total admissions.

## Outflow

- Hospitals outside the LHIN accounted for 4.4% of the total rehabilitation admissions of the LHIN residents.
- By sub-region of patient residence:
  - Lambton residents had the highest rate of admission to hospitals outside the LHIN at 8.9%.
  - Essex South Shore residents had the lowest rate of admission to hospitals outside the LHIN at 1.6%.

## Inflow

- 1.7% of the rehabilitation admissions at the hospitals in the LHIN were residents from outside Erie St. Clair.

Rehab Admissions, Active Cases, Discharges and Days*	LHIN	Ontario	Ranking Among LHINs**	% Change 2013/14-2016/17	Range across sub-region
<b>LHIN of hospital</b>					
General admissions	1,287	28,691		-12.7%	
Special admissions	1,099	4,444		73.9%	
Total admissions	2,386	33,135		13.2%	
% Inflow inpatient rehab admissions	1.7%				
Active Cases	3,696	43,329			
Discharges	2,392	33,133			
Total Days (discharged cases only)	55,931	839,228			
Mean Length of Stay (discharged cases only)	23.4	25.3	4 <sup>th</sup> lowest		
<b>LHIN of patient</b>					
Total population age 18+	516,377	11,287,810		1.4%	
Total admissions	2,455	33,016		12.6%	227-731
Admissions/100,000 population age 18+	475.4	292.5	Highest	10.9%	369.6-727.1
Admissions/100,000 population age 18-44 years	46.9	30.4	2 <sup>nd</sup> highest		27.6-106.1
Admissions/100,000 population age 45-64 years	181.4	150.9			113.7-237.0
Admissions/100,000 population age 65-79 years	968.7	689.3	Highest		761.3-1,287.9
Admissions/100,000 population age 80+ years	3,642.6	2,311.8	Highest		2,745.3-5,513.2
% Outflow inpatient rehabilitation admissions	4.4%				1.6%-8.9%
Active cases per 1,000 population age 18+	726.0	382.3	Highest		569.5-847.2
Discharges per 1,000 population age 18+	475.6	292.5	Highest		371.8-715.6
Mean Length of Stay (discharged cases only)	24.0	25.3			20.0-27.1

	Windsor	Tecumseh Lakeshore Amherstburg LaSalle	Essex South Shore	Chatham City Centre	Rural Kent	Lambton
Measure						
Rehab Admissions	731	328	312	251	227	606
Rehab Admission Rate per 100,000 Population	408.9	369.6	516.3	727.1	461.7	578.7
Rehab Active Cases	1,402	613	512	284	280	658
Rehab Active Case Rate per 100,000 Population	784.2	690.7	847.2	822.7	569.5	628.3
Rehab Discharges	733	330	315	247	230	601
Rehab Discharge Rate per 100,000 Population	410.0	371.8	521.2	715.6	467.8	573.9
Total Inpatient Days (discharged cases only)	19,882	8,865	7,151	5,941	5,084	12,016
Mean LOS (discharged cases only)	27.1	26.9	22.7	24.1	22.1	20.0
<b>Age specific admission rates per 100,000 population</b>						
18-44 years	45.6	27.6	-	61.3	106.1	56.0
45-64 years	177.7	113.7	172.7	237.0	194.8	230.3
65-79 years	996.5	881.3	893.4	1,287.9	761.3	1,017.8
80+ years	2,745.3	4,186.7	4,407.3	5,513.2	3,135.9	3,912.9

Rehab Admissions, by Leading Rehabilitation Groups*	LHIN	% of Total Rehab Admission
LHIN of Patient		
18-Other disabilities	598	24.4%
10-Fracture of lower extremity	558	22.7%
01-Stroke	425	17.3%
12-Other orthopaedic	134	5.5%
11-Replacement of lower extremity	120	4.9%
03-Non-traumatic brain injury		
13-Cardiac		
06-Non-traumatic spinal cord injury		
07-Amputation		
02-Traumatic brain injury		
16-Major multiple trauma		

\* FY 16/17 data unless noted otherwise.

\*\* Top or bottom 4 ranking in the province, compared to other LHINs.

## Complex Continuing Care Utilization

### Complex Continuing Care

- In 2016/17, there were 1,040 CCC active cases treated in Erie St. Clair LHIN hospitals and residents from outside the LHIN accounted for 0.7% of these active cases. In 2016/17, there were 844 admissions and 853 discharges from Erie St. Clair LHIN hospital CCC units. Erie St. Clair LHIN hospitals had a mean LOS of 86.6 days - ranking 11<sup>th</sup> across LHINs.
- There were reductions in the number of active cases (-32.8%), admissions (-32.9%), discharges (-33.6%) and total days (-45.1%) for Erie St. Clair LHIN hospital CCC units between 2013/14 and 2016/17.
- During the period, the mean length of stay in CCC beds decreased from 104.8 days to 86.6 days.
- In 2016/17, there were 1,061 CCC active cases for Erie St. Clair LHIN residents, and 2.6% of these cases were treated in hospitals outside the LHIN.
- The active case rate for Erie St. Clair LHIN residents was lower than the provincial value

### Utilization of Complex Continuing Care, Erie St. Clair LHIN and Ontario, 2016/17

Measure	Erie St. Clair LHIN		Ontario	
	LHIN	% Change	Provincial	% Change
	Values	2013/14-2016/17	Value	2013/14-2016/17
<b>LHIN of Hospital</b>				
Active Cases	1,040	-32.8%	29,466	-0.1%
% Inflow	0.7%			
Admissions	844	-32.9%	24,108	0.5%
Discharges	853	-33.6%	23,995	-0.2%
Total Days	73,896	-45.1%	1,855,227	-2.0%
Mean LOS	86.6		77.3	
<b>LHIN of Patient</b>				
Active Cases	1,061	-31.6%	29,366	0.3%
Active cases/100,000 population	165.0	-32.2%	210.0	-2.9%
% Outflow	2.6%			
Admission	858	-31.8%	24,022	0.8%
Admissions/100,000 population	133.5		171.8	
Discharges	872	-32.4%	23,908	0.1%
Discharges/100,000 population	135.6		171.0	
Total Days	77,829	-43.5%	1,850,599	-1.1%
Mean LOS	89.3		77.4	

## Alternate Level of Care

### LHIN overview

Erie-St. Clair LHIN						
Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Rank
Acute ALC Days (closed cases)	56,197	50,926	42,792	40,518	NV	3
% ALC Days (Acute Inpatient closed cases)	19.4%	18.1%	16.0%	14.9%	NV	6
Volume of Closed Cases	3,843	4,178	3,743	2,665	2,432	3
Volume of Closed Cases - Home with CCAC Services	583	1,102	750	396	454	
Volume of Closed Cases - Long Term Care	798	483	411	339	393	
Volume of Closed Cases – Rehabilitation	858	955	993	698	544	
Volume of Closed Cases – Residential	1,604	1,603	1,589	1,530	1,441	
90 <sup>th</sup> Percentile Wait of Closed Cases (Days)	72	45	45	54	56	9
90 <sup>th</sup> Percentile Wait of Closed Cases - Home with CCAC Services	34	52	91	76	46	
90 <sup>th</sup> Percentile Wait of Closed Cases - Long Term Care	248	326	152	184	160	
90 <sup>th</sup> Percentile Wait of Closed Cases – Rehabilitation	17	17	21	16	13	
90 <sup>th</sup> Percentile Wait of Closed Cases – Residential	100	100	100	100	100	
Volume of Open Cases	297	264	201	158	140	2
Volume of Open Cases - Home with CCAC Services	71	117	54	34	27	
Volume of Open Cases - Home with Community Services	6	9	15	21	21	
Volume of Open Cases - Long Term Care	108	35	44	60	44	
Volume of Open Cases – Residential	112	103	88	63	48	
Volume of Open Cases on the last day of the year	391	134	309	317	240	8
90 <sup>th</sup> Percentile Wait of Open Cases - Home with CCAC Services	167	197	374	556	80	
90 <sup>th</sup> Percentile Wait of Open Cases - Home with Community Services	0	0	91	156	253	
90 <sup>th</sup> Percentile Wait of Open Cases - Long Term Care	556	386	367	352	380	
90 <sup>th</sup> Percentile Wait of Open Cases – Residential	100	100	100	100	100	
Throughput Ratio (discharged case/newly added cases)	1.02	1.01	1.02	1.01	1.00	13
% of Cases Designated ALC within 1 Day	12.8%	10.5%	8.5%	8.1%	11.5%	13
% of Cases Designated ALC within 2 Days	16.5%	15.1%	13.0%	12.0%	15.4%	12
% of Cases Designated ALC within 3 Days	21.8%	21.1%	19.3%	17.0%	19.9%	11
ALC Rate - All Inpatient Services	24.3%	19.5%	19.3%	15.1%	13.4%	5
ALC Rate - Acute Inpatient Services	20.2%	17.1%	16.4%	13.0%	10.8%	3
ALC Rate - Post-Acute Inpatient Services	30.5%	23.1%	23.5%	18.4%	17.2%	10
ALC Rate - CCC Inpatient Services	54.1%	41.6%	43.1%	36.9%	37.5%	11
ALC Rate - Rehab Inpatient Services	8.7%	6.2%	6.3%	8.7%	7.0%	7
ALC Rate - Mental Health Inpatient Services	4.0%	5.5%	5.9%	4.2%	2.2%	2

## Closed ALC Cases

### Acute ALC Days

- Acute ALC Days decreased by 15,679 from FY 13/14 to FY 16/17.

### % ALC Days (Acute Inpatient)

- % ALC Days decreased from 19.4% in FY 13/14 to 14.9% in FY 16/17.

### Volume of Closed Cases

- The volume of closed cases for all inpatient services decreased by 37% from 3,843 in FY 13/14 to 2,432 in FY 17/18.
  - Home with CCAC Services – number of closed cases has decreased by 22% from 583 in FY 13/14 to 454 in FY 17/18
  - Long-term Care – number of closed cases has decreased by 51% from 798 in FY 13/14 to 393 in FY 17/18
  - Rehabilitation – number of closed cases has decreased by 37% from 858 in FY 13/14 to 544 in FY 17/18

### 90<sup>th</sup> Percentile Wait of Closed Cases

- The wait time for closed cases (all inpatients services and all discharge destinations) decreased by 22% from 72 days in FY 13/14 to 56 days in FY 17/18. 6<sup>th</sup> across LHINs at the end of FY 17/18.
  - Home with CCAC Services – wait time has increased by 35% from 34 days in FY 13/14 to 46 days in FY 17/18.
  - Long-term Care – wait time has decreased by 35% from 248 days in FY 13/14 to 160 days in FY 17/18.
  - Rehabilitation – wait time has decreased by 24% from 17 days in FY 13/14 to 13 days in FY 17/18.

### Wait Time by Sub-Region of Patient Residence

- Tecumseh Lakeshore Amherstburg LaSalle residents had the longest wait in the LHIN at 65 days; Chatham City Centre had the shortest at 39 days.

## Open ALC Cases

### Volume of Open Cases

- The number of ALC waitlist entries open across all inpatient bed types decreased by 53% from 297 at the end of FY 13/14 to 140 at the end of FY 17/18.
  - Home with CCAC Services – number of open cases has decreased by 62% from 71 at the end of FY 13/14 to 27 at the end of FY 17/18
  - Home with Community Services – number of open cases has increased by 250% from 6 at the end of FY 13/14 to 21 at the end of FY 17/18
  - Long-term Care – number of open cases has decreased by 59% from 108 at the end of FY 13/14 to 44 at the end of FY 17/18

### 90<sup>th</sup> Percentile Wait of Open Cases

- The wait time for open cases (all inpatients services and all discharge destinations) decreased by 39% from 391 days at the end of FY 13/14 to 240 days at the end of FY 17/18. Patients awaiting discharge from Erie St. Clair LHIN hospitals had waited 184 days longer than patients who were discharged in 17/18, and had waited the 7<sup>th</sup> longest across LHINs at the end of FY 17/18.
  - Home with CCAC Services – wait time has decreased by 52% from 167 days at the end of FY 13/14 to 80 days at the end of FY 17/18.
  - Home with Community Services – wait time has increased by 178% from 91 days at the end of FY 15/16 to 253 days at the end of FY 17/18



- Long-term Care - wait time has decreased by 32% from 556 days at the end of FY 13/14 to 380 days at the end of FY 17/18.

#### *Wait Time by Sub-Region of Patient Residence*

- Lambton residents had the longest wait in the LHIN at 506 days; Tecumseh Lakeshore Amherstburg LaSalle had the shortest at 111 days

#### **ALC Wait Time (Days) by Sub-Region of Patient Residence**

Erie-St. Clair LHIN					
Closed & Open Cases - All Discharge Destinations by Sub-Region	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
<i>90<sup>th</sup> Percentile Wait of Closed Cases</i>					
101 WINDSOR	84	45	46	53	57
102 TECUMSEH LAKESHORE AMHERSTBURG LASALLE	55	49	31	51	65
103 ESSEX SOUTH SHORE	73	33	45	42	54
104 CHATHAM CITY CENTRE	29	16	14	35	39
105 RURAL KENT	30	21	27	48	49
106 LAMBTON	94	70	80	81	60
<i>90<sup>th</sup> Percentile Wait of Open Cases</i>					
101 WINDSOR	409	88	337	445	195
102 TECUMSEH LAKESHORE AMHERSTBURG LASALLE	524	314	314	276	111
103 ESSEX SOUTH SHORE	138	167	239	114	268
104 CHATHAM CITY CENTRE	0	0	0	0	152
105 RURAL KENT	0	0	0	141	318
106 LAMBTON	298	336	261	424	506

#### *Hospital Processes and Capacity*

##### **ALC Throughput Ratio**

- In the Erie St. Clair LHIN, the throughput ratio decreased from 1.02 in FY 13/14 to 1.00 in FY 17/18

##### **Percentage of Patients Designated ALC within 1, 2 & 3 Days of Admission**

- The percentage of patients that have been designated as requiring an alternate level of care within one, two and three days of admission to hospital decreased over the last four years in the Erie St. Clair LHIN from FY 13/14 to FY 16/17. However, all 3 measures have risen for 17/18 and are amongst the highest rates in the province (2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> respectively).

##### **ALC Rate (All Inpatient Services)**

- The annual ALC rate for all inpatient beds decreased from 24.3% in FY 13/14 to 13.4% in FY 17/18.
- In FY 17/18, the Erie St. Clair LHIN was below the provincial rate of 15.4%.

##### *Acute I/P Services*

- Erie St. Clair LHIN has decreased over the past 5 fiscal years (20.2% FY 13/14; 10.8% FY 17/18) and is now 5.4% below the provincial value.

##### *Post-Acute I/P Services*

- Erie St. Clair LHIN has decreased over the past 5 fiscal years (30.5% FY 13/14; 17.2% FY 17/18). Erie St. Clair LHIN is above the provincial Post-acute ALC rate (5<sup>th</sup> highest in ON).
  - CCC Inpatient Services – 4<sup>th</sup> across LHINs for FY 17/18. Rate has decreased from 54.1% in FY 13/14 to 37.5% in FY 17/18.
  - Rehab Inpatient Services - 8<sup>th</sup> across LHINs for FY 17/18. Rate has decreased from 8.7% in FY 13/14 to 7.0% in FY 17/18.
  - Mental Health Inpatient Services – 13<sup>th</sup> across LHINs for FY 17/18. Rate has decreased from 4.0% in FY 13/14 to 2.2% in FY 17/18.

#### LHIN/Facility/Site – Annual ALC Rate

Province/LHIN/Facility/Site			Annual ALC Rate					% Change FY 13/14 to FY 17/18
			FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	
<b>Provincial</b>			<b>13.8%</b>	<b>13.7%</b>	<b>13.9%</b>	<b>14.8%</b>	<b>15.4%</b>	
<b>LHIN</b>	<b>1</b>	<b>Erie St. Clair</b>	24.3%	19.5%	19.3%	15.1%	13.4%	(-10.9%)
<b>Facility</b>	628	PUBLIC GENERAL HOSP SOCIETY OF CHATHAM	9.2%	6.9%	5.2%	11.0%	10.0%	0.8%
<b>Facility</b>	629	ST JOSEPH'S HLTH SERV ASSOC OF CHATHAM	9.4%	14.1%	9.1%	19.5%	31.1%	21.8%
<b>Facility</b>	870	SYDENHAM DISTRICT HOSPITAL	40.8%	13.7%	16.1%	25.9%	24.3%	(-16.5%)
<b>Facility</b>	704	LEAMINGTON DISTRICT MEMORIAL HOSPITAL	20.9%	14.7%	20.0%	16.1%	17.0%	(-3.9%)
<b>Facility</b>	927	HOTEL-DIEU -GRACE HOSPITAL	31.6%	24.8%	24.8%	18.2%	15.0%	(-16.6%)
<b>Site</b>	4142	HOTEL-DIEU -ST JOSEPH'S	25.7%	N/A	N/A	N/A	N/A	
<b>Site</b>	4779	HOTEL-DIEU GRACE HEALTHCARE	37.9%	24.8%	24.8%	18.2%	15.0%	(-22.9%)
<b>Facility</b>	933	WINDSOR REGIONAL HOSPITAL	23.6%	17.9%	18.1%	11.3%	8.9%	(-14.6%)
<b>Site</b>	3845	WINDSOR REGIONAL HOSPITAL - WESTERN	38.4%	N/A	N/A	N/A	N/A	
<b>Site</b>	4414	WINDSOR –METROPOLITAN	17.3%	13.4%	12.9%	7.5%	8.4%	(-9.0%)
<b>Site</b>	4774	WINDSOR -OUELLETTE CAMPUS	20.4%	21.2%	22.1%	14.3%	9.4%	(-11.1%)
<b>Facility</b>	966	BLUEWATER HEALTH	26.6%	25.6%	24.8%	20.5%	17.2%	(-9.4%)
<b>Site</b>	4109	BLUEWATER -SARNIA GENERAL SITE	24.0%	23.7%	21.9%	16.5%	11.9%	(-12.2%)
<b>Site</b>	4256	BLUEWATER -PETROLIA SITE	47.0%	41.1%	46.2%	49.1%	56.5%	9.5%

- In FY 17/18, Sydenham District Hospital had the highest ALC Rate across the Erie St. Clair LHIN at the facility level, with Bluewater Petrolia having the highest site level rate.
- St. Joseph's Health had the greatest increase in ALC Rate since FY 13/14 (+21.8%)
- Hotel Dieu Grace Hospital had the greatest decrease in ALC Rate since FY 13/14 (-16.6%).

## Long-Term Care

### Long-Term Care Bed Supply

- 36 LTC homes are licensed and approved to operate in Erie St. Clair LHIN.
- As of February 2018, there were a total of 4,606 Long-Term Care beds in operation in Erie St. Clair LHIN.
  - With the exception of 21 beds designated as Short-stay, Respite or Convalescent care beds, almost all of the LTC beds are designated Long-Stay Beds or Interim beds.

### Long-Term Care Waitlist & Placements

- Of the 1,394 patients placed in Erie St. Clair LHIN Long-Term Care Homes in FY 2017/18, approximately 78% were from the community while only 13% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- Of the 1,379 residents of Erie St. Clair LHIN placed in Ontario Long-Term Care Homes in FY 2017/18, approximately 78% were from the community while only 12% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- The median time to placement in an Erie St. Clair LHIN long-term care home, as of March 2018, was 68 days.
  - Half of community patients waited less than 68 days for a placement in an Erie St. Clair LHIN LTC home while half of hospital patients waited less than 50 days for placement in an Erie St. Clair LHIN LTC Home.
- The median time to placement for an Erie St. Clair LHIN resident to be placed in a long-term care home, as of March 2018, was 68 days.
  - Half of community patients from Erie St. Clair LHIN waited less than 68 days for a placement in an Ontario LTC home while half of hospital patients waited less than 53 days for placement.
- As of March 2018, there were 687 patients on the waitlist waiting for placement in a Long-Term Care home in Erie St. Clair LHIN (not including patients awaiting transfer from one LTC home to another).
- As of March 2018, there were 696 residents of Erie St. Clair LHIN on the waitlist waiting for placement in an Ontario Long-Term Care home (not including patients awaiting transfer from one LTC home to another).

### Long-Stay Demand

- As of March 2018, there were 4,539 long-stay residents occupying LTC Homes within Erie St. Clair LHIN.
- When adjusted for the size of the older population, Erie St. Clair LHIN has approximately 87 Long-Stay beds per 1,000 people aged 75+.
  - Within Erie St. Clair LHIN, **Rural Kent** sub-region has the lowest rate at 52 long-stay beds per 1,000 population aged 75+ while **Chatham City Centre** has the highest rate at 141 long-stay beds per 1,000 population aged 75+.
  - These 2 sub-regions within Erie St. Clair LHIN are among the sub-regions that have both the lowest and highest rates of LTC beds in the province.
- The gap between the Demand and Supply of Long-Term Care Homes in Erie St. Clair LHIN is approximately 641 LTC beds, however the largest gaps occur in the **Windsor** and **Lambton** sub-regions consisting of 458 beds (289 and 169 respectively).
- Erie St. Clair LHIN has the smallest gap between LTC Demand and Supply among LHINs in the province.

### **Selected Characteristics of Long-Term Care Home Residents**

- In Erie St. Clair LHIN, 81% of Residents were over the age of 75 with 55% being over the age of 85
- In 2016/17, the mean age of residents of LTC Homes in Erie St. Clair LHIN was 83.
- The mean length of stay for residents of LTC Homes in Erie St. Clair LHIN was 869 days (about 2.4 years) with half of residents remaining in LTC homes for less than 528 days.
- Nearly 80% of residents need extensive help with daily activities such as getting out of bed, eating, or toileting; 31% are highly or entirely dependent on staff.
- 80% have some form of cognitive impairment; 26% are severely impaired.
- 44% exhibit some level of aggressive behaviour related to their cognitive impairment or mental health condition with 5% exhibiting very severe aggressive behavior.
- 64% of active LTC Residents have been identified as having some form of dementia.

## Long-term care home supply, waitlists and placements, and resident characteristics, by LHIN sub-region

	1. ESC		1. ESC		1. ESC		1. ESC		1. ESC		1. ESC		1. ESC	
	Erie St. Clair		0101		0102		0103		0104		0105		0106	
			Windsor		Tecumseh Lakeshore Amherstburg LaSalle		Essex South Shore		Chatham City Centre		Rural Kent		Lambton	
Long-term care bed supply in the sub-region (February 2018)	#	Rate per 1,000 populatio n age 75+	#	Rate per 1,000 populatio n age 75+	#	Rate per 1,000 populatio n age 75+	#	Rate per 1,000 populatio n age 75+	#	Rate per 1,000 populatio n age 75+	#	Rate per 1,000 populatio n age 75+	#	Rate per 1,000 populatio n age 75+
Long-term care homes	36		9		4		6		3		4		10	
Long-stay beds	4,585	86.7	1,415	78.0	448	68.6	776	117.5	552	140.5	277	50.5	1,117	91.5
Short-stay, respite & convalescent care beds	21	0.4	2	0.1	2	0.3	2	0.3	6	1.5	6	1.1	3	0.2
Total beds in operation	4,606	87.1	1,417	78.1	450	68.9	778	117.8	558	142.0	283	51.6	1,120	91.7

*\*The denominator for the rate calculation refers to the number of sub-region residents age 75+; however the LTC homes/beds may serve individuals from other sub-regions. Therefore, rates should be interpreted with caution.*

	1. ESC		1. ESC		1. ESC		1. ESC		1. ESC		1. ESC		1. ESC	
	Erie St. Clair		0101		0102		0103		0104		0105		0106	
			Windsor		Tecumseh Lakeshore Amherstburg LaSalle		Essex South Shore		Chatham City Centre		Rural Kent		Lambton	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>By sub-region of long-term care home (patients awaiting placement in a home within the sub-region)</b>														
Long-stay waitlist without transfer patients*	687	13.0	300	16.5	29	4.4	81	12.3	53	13.5	40	7.3	184	15.1
<b>Placements**</b>														
From community	1,082	77.6%	341	85.0%	144	85.7%	180	77.3%	101	71.6%	61	64.2%	255	71.6%
From hospital	180	12.9%	23	5.7%	14	8.3%	34	14.6%	14	9.9%	12	12.6%	83	23.3%
Total	1,394		401		168		233		141		95		356	

	1. ESC		1. ESC		1. ESC		1. ESC		1. ESC		1. ESC		1. ESC	
	Erie St. Clair		0101		0102		0103		0104		0105		0106	
			Windsor		Tecumseh Lakeshore Amherstburg LaSalle		Essex South Shore		Chatham City Centre		Rural Kent		Lambton	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Median time to placement (days)</b>														
From community	68		66.0		63.5		65.5		91.0		53.0		70.0	
From hospital	50		78.0		101.5		56.0		49.5		55.5		27.0	
Total	68		78.0		70.0		63.0		90.0		58.0		61.0	
<b>By sub-region of patient (patients who reside within the sub-region and are awaiting placement in any home)</b>														
Long-stay waitlist without transfer patients*	696	13.2	252	13.9	101	15.5	69	10.4	48	12.2	40	7.3	186	15.2
<b>Placements**</b>														
From community	1,079	78.2%	385	84.4%	177	88.5%	116	74.8%	84	63.6%	66	68.0%	251	74.0%
From hospital	167	12.1%	30	6.6%	8	4.0%	30	19.4%	21	15.9%	7	7.2%	71	20.9%
Total	1,379		456		200		155		132		97		339	
<b>Median time to placement (days)</b>														
From community	68		64.0		62.0		70.5		68.0		66.5		73.0	
From hospital	53		82.5		159.0		55.5		33.0		69.0		31.0	
Total	68		74.0		67.5		64.0		57.0		76.0		66.0	

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents

Placements from other locations (correctional facilities, homeless, out-of-province) are not shown but are included in the total placement values.

	1. ESC		1. ESC		1. ESC		1. ESC		1. ESC		1. ESC		1. ESC	
	Erie St. Clair		0101		0102		0103		0104		0105		0106	
			Windsor		Tecumseh Lakeshore Amherstburg LaSalle		Essex South Shore		Chatham City Centre		Rural Kent		Lambton	
Long-stay demand (February / March 2018) for LTC homes in the sub-region	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-stay residents	4,539	85.8	1,404	77.4	440	67.3	771	116.7	546	139.0	276	50.3	1,102	90.2
Long-stay waitlist without transfer patients	687	13.0	300	16.5	29	4.4	81	12.3	53	13.5	40	7.3	184	15.1
Total demand	5,226	98.8	1,704	94.0	469	71.8	852	129.0	599	152.5	316	57.6	1,286	105.3
Total long-stay supply	4,585	87	1,415	78.0	448	68.6	776	117.5	552	140.5	277	50.5	1,117	91.5
Difference between supply and demand	641	12	289	15.9	21	3.2	76	11.5	47	12.0	39	7.1	169	13.8

	Erie St. Clair		1. ESC		1. ESC		1. ESC		1. ESC		1. ESC		1. ESC	
			0101		0102		0103		0104		0105		0106	
			Windsor		Tecumseh Lakeshore Amherstburg LaSalle		Essex South Shore		Chatham City Centre		Rural Kent		Lambton	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Demography, volume and length of stay (LOS)</b>														
Active LTC Residents*	4,093	77.4	1,246	68.7	408	62.4	708	107.2	501	127.5	244	44.5	986	80.7
Number of admissions*	1,662	31.4	477	26.3	166	25.4	313	47.4	191	48.6	103	18.8	412	33.7
<b>By age group**</b>														
Residents age <65	268	6.5%	102	8.2%	21	5.1%	29	4.1%	25	5.0%	21	8.6%	70	7.1%
Residents age 65-74	491	12.0%	151	12.1%	40	9.8%	85	12.0%	73	14.6%	21	8.6%	121	12.3%
Residents age 75-84	1,073	26.2%	306	24.6%	97	23.8%	200	28.2%	147	29.3%	67	27.5%	256	26.0%
Residents age 85+	2,261	55.2%	687	55.1%	250	61.3%	394	55.6%	256	51.1%	135	55.3%	539	54.7%
Mean age of residents	83		83		85		84		83		84		83	
Mean age of residents at admission	83		83		85		84		82		83		83	
<b>Length of stay</b>														
Mean LOS (days)	869		731		837		950		956		892		919	
Median LOS (days)	528		486		550		560		466		611		607	
<b>Residents by level of ADL assistance required**</b>														
None or limited assistance required	838	20.5%	280	22.5%	59	14.5%	101	14.3%	167	33.3%	31	12.7%	200	20.3%
Extensive assistance required	2,007	49.0%	557	44.7%	215	52.7%	364	51.4%	208	41.5%	140	57.4%	523	53.0%
Dependent	1,248	30.5%	409	32.8%	134	32.8%	243	34.3%	126	25.1%	73	29.9%	263	26.7%



	Erie St. Clair		1. ESC		1. ESC		1. ESC		1. ESC		1. ESC		1. ESC	
			0101		0102		0103		0104		0105		0106	
			Windsor		Tecumseh Lakeshore Amherstburg LaSalle		Essex South Shore		Chatham City Centre		Rural Kent		Lambton	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Residents by level of aggressive behaviour**</b>														
No signs of aggressive behaviour	2,282	55.8%	620	49.8%	243	59.6%	343	48.4%	296	59.1%	154	63.1%	626	63.5%
Some signs of aggressive behaviour	972	23.7%	268	21.5%	105	25.7%	199	28.1%	138	27.5%	44	18.0%	218	22.1%
Moderate to severe aggressive behaviour	639	15.6%	258	20.7%	50	12.3%	125	17.7%	56	11.2%	34	13.9%	116	11.8%
Very severe aggressive behaviour	199	4.9%	99	7.9%	10	2.5%	41	5.8%	11	2.2%	12	4.9%	26	2.6%
<b>Cognitive impairment categories **</b>														
Relatively intact	828	20.2%	265	21.3%	58	14.2%	93	13.1%	156	31.1%	51	20.9%	205	20.8%
Mild impairment	2,203	53.8%	654	52.5%	240	58.8%	406	57.3%	233	46.5%	118	48.4%	552	56.0%
Severe impairment	1,062	25.9%	327	26.2%	110	27.0%	209	29.5%	112	22.4%	75	30.7%	229	23.2%
<b>RUG categories **</b>														
1 Extensive Services	137	3.3%	36	2.9%	6	1.5%	39	5.5%	6	1.2%	5	2.0%	45	4.6%
2 Special Rehabilitation	200	4.9%	26	2.1%	28	6.9%	14	2.0%	46	9.2%	14	5.7%	72	7.3%
3 Special Care	499	12.2%	173	13.9%	36	8.8%	80	11.3%	39	7.8%	25	10.2%	146	14.8%
4 Clinically Complex	851	20.8%	295	23.7%	69	16.9%	132	18.6%	63	12.6%	45	18.4%	247	25.1%
5 Impaired Cognition	506	12.4%	162	13.0%	36	8.8%	87	12.3%	83	16.6%	29	11.9%	109	11.1%
6 Behavioural Problems	59	1.4%	24	1.9%	<5		9	1.3%	7	1.4%	<5		13	1.3%
7 Reduced Physical Functions	1,841	45.0%	530	42.5%	230	56.4%	347	49.0%	257	51.3%	123	50.4%	354	35.9%
<b>Residents with Dementia**</b>	2,628	64.2%	801	64.3%	274	67.2%	480	67.8%	318	63.5%	146	59.8%	609	61.8%

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents



## 2. South West LHIN



## Contents

<b>2. South West LHIN</b>	<b>1</b>
<b>Highlights</b>	<b>1</b>
South West LHIN	1
Residents of South West LHIN Sub-Regions	2
<b>Population Characteristics</b>	<b>7</b>
Population Estimates	7
2016 Census Profile	8
Births and Mortality	15
General Health, Risk Factors, and Prevention	20
Chronic Conditions	22
<b>Human Resources</b>	<b>34</b>
<b>Primary Care</b>	<b>37</b>
Primary Care Enrolment	37
Selected Measures from the Health Care Experience Survey	37
<b>Community Care</b>	<b>39</b>
<b>Mental Health</b>	<b>40</b>
Wait Time for Community Services	40
Mental Health and Substance Abuse Emergency Department Visits	40
Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility	41
<b>Surgery &amp; Diagnostic Imaging</b>	<b>43</b>
Day Surgery and Cardiac Catheterization Utilization	43
Surgical & Diagnostic Imaging Wait Times	44
<b>Oncology and Dialysis</b>	<b>53</b>
<b>Home Care</b>	<b>56</b>
<b>Palliative Care</b>	<b>59</b>
<b>Emergency Department</b>	<b>62</b>
Emergency Department Utilization	62
Emergency Department Performance	66
<b>Acute Care</b>	<b>68</b>
Acute Care Utilization by Residents of the South West LHIN	68
Acute Care Utilization for South West LHIN Facilities	69
Acute Care Inflow/Outflow	71
<b>Post-Acute Care</b>	<b>72</b>
Inpatient Rehabilitation Utilization	72
Complex Continuing Care Utilization	75
<b>Alternate Level of Care</b>	<b>76</b>
Closed ALC Cases	77
Open ALC Cases	77
Hospital Processes and Capacity	78
<b>Long-Term Care</b>	<b>81</b>

## Highlights

Comprehensive information about population demographics, health status, health outcomes, chronic conditions, human resources, primary care, health service utilization, and long-term care in the South West LHIN can be found under the content headings of in the remainder of this document, beginning with the socio-demographic profile. This Highlights introduction is intended to provide a guide to areas in which either the South West LHIN or one of its sub-regions is significantly different from the province as a whole. Sub-region comparisons within this section are always to the other 75<sup>1</sup> sub-regions across the province, and LHIN comparisons are always to the other 13 LHINs.

### South West LHIN

#### Population Characteristics

- The South West LHIN had the **lowest** percentage of residents who meet the inclusive definition of Francophone.
- **South West** LHIN residents had the **largest** increase in day surgery and ambulatory cardiac catheterization visits between 2013/14 and 2016/17.

#### Strengths

- In South West, the total and repeat Caesarean section rates were the **lowest** in the province.
- The assisted delivery rate using vacuum extraction was the **lowest** in the province.
- The South West LHIN had the 2<sup>nd</sup> highest percentage of residents who were satisfied with health care in their community.
- The South West LHIN had the 2<sup>nd</sup> highest percentage of residents who reported attachment to a primary care provider.
- The South West LHIN had the 2<sup>nd</sup> highest percent of residents who reported that they were able to see their provider the same day or next day when they were sick.
- In 2017/18, 90<sup>th</sup> percentile wait time for adult MRI scans was **shortest** in the **South West** LHIN.
- Hospitals in the South West LHIN had the **highest** percentage of patients admitted to an inpatient bed within the target of 8 hours.

#### Challenges/Opportunities

- A **significantly higher** percentage of South West LHIN residents reported heavy drinking than the Ontario rate.
- In 2017/18, 90<sup>th</sup> percentile wait time for hip replacement surgeries was **longest** in the **South West** LHIN.
- In 2017/18, 90<sup>th</sup> percentile wait time for knee replacement surgeries was **longest** in the **South West** LHIN.
- Emergency departments in the South West LHIN saw the **most** non-admitted low acuity patients in 2017/18.

---

<sup>1</sup> Or however many sub-regions have reported data across the province.

## Residents of South West LHIN Sub-Regions

### GREY BRUCE SUB-REGION HIGHLIGHTS

#### Population Characteristics

- 7<sup>th</sup> highest percentage of population aged 65+.
- 5<sup>th</sup> highest percentage of population aged 75+.
- 4<sup>th</sup> highest dependency ratio.
- 6<sup>th</sup> lowest percentage of residents who meet the new inclusive definition of Francophone.
- 6<sup>th</sup> highest all-cause mortality rate in the province.
- Among the eight lowest nursing visit rates per 1,000 population in 2017/18.

#### Strengths

- 2<sup>nd</sup> lowest percentage of households with an insufficient number of bedrooms to accommodate household size.
- Among the 8 sub-regions with the lowest mean cost per high cost healthcare user.
- 7<sup>th</sup> lowest “small for gestational age” rate in the province.

#### Challenges/Opportunities

- Overweight or obesity rates were **significantly higher** in Grey Bruce than in Ontario.
- The prevalence rate for the population with arthritis was **significantly higher** than Ontario.
- The prevalence rate for the population with high blood pressure was **significantly higher** than Ontario.
- 6<sup>th</sup> lowest percentage of residents who reported that they were able to see their provider the same day or next day when they were sick.
- 4<sup>th</sup> highest percentage of residents who went to the ED for something that could have been treated by primary care provider.
- 5<sup>th</sup> highest percentage of residents who found it difficult to access care after-hours without going to an emergency department.

## HURON PERTH SUB-REGION HIGHLIGHTS

### Population Characteristics

- 8<sup>th</sup> highest dependency ratio.
- 3<sup>rd</sup> lowest percentage of residents who report French as their mother tongue and 2<sup>nd</sup> lowest percentage of residents who meet the new inclusive definition of Francophone.
- Among the shortest acute length of stay in acute hospital beds in 2016/17.
- Among the shortest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- 6<sup>th</sup> highest CCC active case rate.

### Strengths

- 2<sup>nd</sup> lowest percentage of residents age 15+ who were unemployed.
- A **significantly higher** proportion of residents of **Huron Perth** reported having a regular medical doctor than of residents of the province as a whole.
- **Significantly lower** rates of asthma compared to Ontario.
- Ranked in the lowest 8 among Ontario sub-regions in terms of mean total and acute lengths of stay – with values well below the Ontario value.
- Compared to Ontario, the proportion of residents consuming fewer than 5 servings of fruits or vegetables per day was **significantly lower**.
- 3<sup>rd</sup> highest percent of residents reporting satisfaction with health care in their community.
- 3<sup>rd</sup> lowest percent of residents who went to a walk in clinic for something that could have been treated by provider if they were available.
- Residents of **Huron Perth** tied for the 3<sup>rd</sup> shortest wait before being discharged from hospital with an ALC designation (closed cases).
- **Shortest** wait to date for discharge from an ALC designation in hospital (open cases).

### Challenges/Opportunities

- Overweight or obesity rates were **significantly higher** than Ontario.
- 7<sup>th</sup> highest mental health active case rate per 100,000 population age 15+.



## LONDON MIDDLESEX SUB-REGION HIGHLIGHTS

### Population Characteristics

- 3<sup>rd</sup> largest population. This sub-region's population was larger than that of the North West LHIN.

### Strengths

- Among the 8 sub-regions with the lowest hospitalization rates for ischemic heart disease.

### Challenges/Opportunities

- Residents of London Middlesex have **significantly higher** rates of asthma than Ontario.



## ELGIN SUB-REGION HIGHLIGHTS

### Population Characteristics

- 5<sup>th</sup> lowest percentage of residents who meet the new inclusive definition of Francophone.
- 8<sup>th</sup> highest percentage residents age 25-64 with less than high school.
- 8<sup>th</sup> lowest percentage of residents age 25-64 with bachelor's degree completion and beyond.
- 3<sup>rd</sup> highest percentage of patients with two or more acute inpatient admissions in the last 30 days of life.
- Residents of **Elgin** had among the shortest acute length of stay in acute hospital beds in 2016/17.
- Residents of **Elgin** had among the shortest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- Residents of **Elgin** had the 5<sup>th</sup> shortest rehabilitation length of stay.

### Strengths

- 6<sup>th</sup> lowest pre-term birth rate in the province.
- 8<sup>th</sup> lowest low birth weight rate in the province.
- Compared to Ontario, very good or excellent mental health was significantly more prevalent in the **Elgin** sub-region.
- Ranked in the lowest 8 among Ontario sub-regions in terms of mean total and acute lengths of stay – with values well below the Ontario value.
- 5<sup>th</sup> lowest mean length of stay for inpatient rehabilitation.

### Challenges/Opportunities

- Residents of **Elgin** smoke at a **significantly higher** rate than the province as a whole.
- Overweight or obesity rates were **significantly higher** compared to Ontario.
- Among the 8 sub-regions with the highest hospitalization rates for cerebrovascular disease.
- Among the 8 sub-regions with the highest hospitalization rates for chronic obstructive pulmonary disease.
- Among the 8 sub-regions with the highest hospitalization rates for hypertension.
- Among the 8 sub-regions with the highest hospitalization rates for stroke.

## OXFORD SUB-REGION HIGHLIGHTS

### Population Characteristics

- 8<sup>th</sup> lowest percentage of residents who meet the new inclusive definition of Francophone.
- **Highest** percentage of residents age 25-64 with only high school completion among Ontario sub-regions.
- 8<sup>th</sup> highest crude birth rate in the province.
- 7<sup>th</sup> highest fertility rate among 15 to 49 year olds in the province.
- Among the eight highest total home service visit rates in 2017/18.
- Among the eight lowest nursing visit rates in 2017/18.

### Strengths

- 4<sup>th</sup> lowest percentage of residents age 15+ who were unemployed.
- 5<sup>th</sup> lowest “small for gestational age” rate among all provincial sub-regions.
- A **significantly higher** proportion of residents reported having a regular medical doctor compared with residents of the province as a whole (CCHS).
- **Highest** percentage of residents who reported attachment to a primary care provider.

### Challenges/Opportunities

- Residents of **Oxford** smoke at a **significantly higher** rate than the province as a whole.
- 7<sup>th</sup> highest “large for gestational age” rate among all provincial sub-regions.
- 3<sup>rd</sup> highest percentage of residents who found it difficult to access care after-hours without going to an emergency department.
- 4<sup>th</sup> highest percentage of patients with two or more acute inpatient admissions in the last 30 days of life (tied with **District of Kenora**).

## Population Characteristics

### Population Estimates<sup>2</sup>

- As of 2016, the population of the South West LHIN was estimated to be 981,331, a 3.2% increase over 2011.
  - The populations 65 and over and 75 and over represented 18% and 8% of the total population respectively.
- The population of the South West LHIN is projected to increase by 4.5.4% by 2021 and by 8.1% by 2026.

### Population Estimates from 2016 Census and Ministry of Finance

	Ontario	South West	Comments†
2011 Census, total population	12,851,821	925,305	
2016 Census, total population	13,448,494	953,652	
Population growth between 2011 and 2016 (based on Census)	4.6%	3.1%	
Estimated population, 2011	13,263,544	950,973	
<b>Estimated population, 2016</b>	<b>13,982,984</b>	<b>981,331</b>	
% population age 65+	16.38%	18.42%	
% population age 75+	7.17%	8.12%	
<b>% population change estimated 2011-2016</b>	<b>5.4%</b>	<b>3.2%</b>	
Projected population, 2021	14,980,422	1,025,915	
Projected population, 2026	15,822,463	1,061,164	
% changes (based on changes from the 2016 estimates)			
% population change forecasted 2016-2021	7.1%	4.5%	
% population change forecasted 2016-2026	13.2%	8.1%	

### Sub-Region Population Estimates from Ministry of Finance, 2016

Sub-Region Name	Total population	Age 65plus	% 65+	Age 75plus	% 75+
Grey Bruce	150,127	35,490	23.64%	15,456	10.30%
Huron Perth	137,953	27,712	20.09%	12,574	9.11%
London Middlesex	475,881	78,259	16.45%	34,377	7.22%
Elgin	91,173	16,108	17.67%	6,612	7.25%
Oxford	112,292	20,642	18.38%	9,565	8.52%

<sup>2</sup> Please see note in Ontario chapter on Census versus Ministry of Finance estimates.

## 2016 Census Profile

### Census Demographics

- 16.8% of the population was in the age group 0-14 and 64.3% was in the age group 15-64.
- The dependency ratio in South West at 71.3 was greater than the province at 64.5.
- The largest proportion of South West's population (40.2%) lived in large urban communities.
- 19.9% of South West's population lived in medium/small population centre communities.
- The smallest proportion of South West's population (11.4%) lived in rural or small communities adjacent to urban areas communities.
- 28.4% of South West's population lived in rural and small town communities.
- South West's land mass measures 20,915 square kilometres making it the 3<sup>rd</sup> largest LHIN in the province.
- South West's population density was 45.6 persons per square kilometre making it the 4<sup>th</sup> most sparsely populated LHIN in the province.

### Households

- In 2016, 167,700 households contained one or more family members aged 65 years and over. 26.2% of those individuals were living alone.
  - By sub-region, **London Middlesex** had the highest rate of seniors living alone (27.8%) and **Oxford** had the lowest (24.6%).
  - **London Middlesex** had the highest rate of one person households (30.3%) and **Elgin** had the lowest (25.3%)
  - **Elgin** had the highest rate of 5 or more person households (9.2%) and **Grey Bruce** had the lowest (6.4%).
- In 2016, 151,020 families with children were living within the South West LHIN. 27.2% of those families were lone parent.
  - By sub-region, **London Middlesex** had the highest rate of lone-parent families (29.8%) and **Huron Perth** had the lowest (23.1%)
- The total number of owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio was 379,950. 23.5% of those households spent 30% or more of their income on rent or payments.
  - By sub-region, **London Middlesex** had the highest rate (25.9%) and **Oxford** had the lowest (19.9%).
- The total number of private households was 392,440. 70.0% of those are owner occupied, 30.0% are rented, and less than 0.1% are band housing.
  - By sub-region and owner occupation rate, **Grey Bruce** had the highest rate (77.9%) with **London Middlesex** being the lowest (63.5%).
- 6.2% of the private households in the South West were in need of major repair, and
  - **Grey Bruce** and **Elgin** both had the highest rate (7%) and **London Middlesex** had the lowest (5.8%).
- 3.2% of the private households in the South Wets LHIN had an insufficient number of bedrooms to accommodate the household makeup.
  - **London Middlesex** had the highest rate of unsuitable housing (4.1%) and **Grey Bruce** had the lowest (2%).

### Language

- In 2016, just over 85% of the population reported English and 1.3% reported French as their mother tongue in South West LHIN.

- By sub-region, **Grey Bruce** had the highest proportion (93.0%) and **London Middlesex** had the lowest proportion of residents who identified English as their mother tongue (80.1%).
- By sub-region, **London Middlesex** had the highest proportion (1.5%) and **Huron Perth** had the lowest proportion of residents who identified French as their mother tongue (0.7%).
- In 2016, 1.4% of South West LHIN residents were Francophone under the 2009 new Inclusive Definition of Francophone, the **lowest** proportion in the province.
  - By sub-region, **London Middlesex** had the highest proportion of Francophone residents (1.8%) and **Huron Perth** had the lowest (0.7%).
- 1.0% of the LHIN's population reported no knowledge of either official language.
  - By sub-region, **London Middlesex** reported the highest proportion of residents with no knowledge of English or French (1.4%). **Grey Bruce** sub-region and **Oxford** sub-region both had the lowest proportion (0.4%).
- English was the most common language spoken at home (91%), followed by both English and a non-official language (2.3%), German (1.3%), Arabic (0.7%) and Spanish (0.6%).

### Income

- In the South West LHIN, 15.0% of the population live on a low income, based on the after-tax low income measure (LIM-AT).
  - The proportion of residents living on a low income varied by sub-region, from 10.8% in the **Oxford** sub-region to 17.2% in the **London Middlesex** sub-region.
  - The proportion of households in the lowest income quintile ranged across sub-regions in the South West LHIN, from 15.8% in the **Oxford** sub-region to 22.7% in the **London Middlesex** sub-region.
- The proportion of households in the highest income quintile varied across sub-regions in the South West LHIN, from 13.7% in the **Elgin** sub-region to 19.2% in the **Grey Bruce** sub-region.
- In the South West LHIN, 21.7% of children under the age of 6 lived in low income households.
  - By sub-region, children living in low income households ranged from 15.8% in the **Oxford** sub-region to 24.3% in the **London Middlesex** sub-region.

### Immigration

- In 2016, immigrants accounted for 14.6% of the South West LHIN population. From 1980 to 2016, 42.0% of immigrants were admitted as economic immigrants, 28.8% were sponsored by family and 28.0% were admitted as refugees. 1.6% of South West LHIN residents were **recent immigrants**, having arrived in Canada between 2011 and 2016. Of the recent immigrants, the highest proportion (9.1%) came from Syria, followed by India (8.4%) and China (6.9%).
  - Among the five South West LHIN sub-regions, the percentage of immigrants ranged from 7.8% in **Grey Bruce** to 20.3% in **London Middlesex**.
  - The percentage of recent immigrants ranged from 0.4% in **Grey Bruce** to 2.6% in **London Middlesex**.
- In 2016, 16.0% of the South West LHIN population were **first generation Canadians** (children of immigrants).
  - Among the five South West LHIN sub-regions, the percentage of first generation Canadians ranged from 8.2% in **Grey Bruce** to 22.6% in **London Middlesex**.

### Visible Minorities

- In 2016, 9.6% of the South West LHIN population was a visible minority.
  - Among the five South West LHIN sub-regions, the percentage of visible minorities ranged from 2.4% in **Grey Bruce** to 17.0% in **London Middlesex**.

### Indigenous (Aboriginal) Identity

- 2.4% of the South West LHIN's residents identified as Aboriginal, with 1.7% identifying as First Nations and 0.7% as Métis.
  - Among the five South West LHIN sub-regions, the percentage of residents reporting Aboriginal identity ranged from 1.4% in **Huron Perth** to 3.7% in **Grey Bruce**.

### Education

- In 2016, 21.5% of South West LHIN residents of working age had completed post-secondary education.
  - Across South West sub-regions, the percentage of the population with less than high school ranged from 9.9% in **London Middlesex** to 17.0% in **Elgin**.
  - The percentage of the population with high school completion ranged from 24.6% in **London Middlesex** to 32.0% in **Oxford**.
  - The percentage of the population with post-secondary education below bachelor's degree ranged from 36.6% in **London Middlesex** to 42.1% in **Grey Bruce**.
  - The percentage of the population with bachelor's degree completion and beyond ranged from 12.3% in **Elgin** to 28.9% in **London Middlesex**.

### Labour Force Participation

- In 2016, the unemployment rate for South West LHIN residents (6.4%) was the 2<sup>nd</sup> lowest in the province compared to the others LHINs. South West LHIN residents aged 15+ had a labour force participation rate of 64%, slightly under the provincial rate (65%).
- Of those employed in 2016, 28% of South West LHIN residents had a commute time from their residence to their place of work of 30 minutes or more, while 11.1% had a commute time of 45 minutes or more.

## 2016 Census Profile

	Ontario	South West	Comments†
<b>Census Population 2016</b>			
Dependency ratio (number of "dependents" for every 100 "workers")	64.5	71.3	2 <sup>nd</sup> highest
<b>Urban-Rural Gradient</b>			
% large urban	68.1%	40.2%	
% medium/small population centre	14.7%	19.9%	
% rural or small communities adjacent to urban areas	8.4%	11.4%	
% rural and small town	8.8%	28.4%	
Land Area (sq km)	908,699	20,915	
Population Density (persons per square kilometre)	14.8	45.6	
<b>Population by Household and Families</b>			
% of people age 65+ living alone	23.5%	26.2%	
% of dwellings in need of major repairs	6.1%	6.2%	
% of households with an insufficient # of bedrooms	6.0%	3.2%	
<b>Language</b>			
% who report English as their mother tongue	69.5%	85.1%	
% who report French as their mother tongue	4.3%	1.3%	
% with no knowledge of English or French	2.5%	1.0%	
% Francophone (IDF)	4.7%	1.4%	Lowest
<b>Population (in Private Households) Living in Low Income</b>			
% Population living below low-income measure (LIM-AT)	14.4%	15.0%	
% Children living in low income households/LIM (age<6)	19.8%	21.7%	
% Children living in low income households/LIM (age<18)	18.4%	19.4%	
% Seniors living in low income households/LIM (age 65+)	12.0%	11.8%	
<b>Immigration</b>			
% of population who are immigrants	29.1%	14.6%	
% of population who arrived within 5 years	3.6%	1.6%	
% first generation Canadian (children of immigrants)	31.1%	16.0%	
<b>Visible Minorities</b>			
% of population who are visible minorities	29.3%	9.6%	
<b>Indigenous Identity</b>			
% of population of Aboriginal identity	2.8%	2.4%	
% population First Nations identity	1.8%	1.7%	
% population Metis identity	0.9%	0.7%	
% population Inuk identity	0.0%	0.0%	
% Multiple Aboriginal responses	0.0%	0.0%	
% Aboriginal responses not included elsewhere	0.1%	0.1%	
<b>Educational Attainment</b>			
% Population age 25-64 with less than high school	10.4%	12.7%	
% Population age 25-64 with high school completion	24.5%	27.2%	
% Population age 25-64 with post-secondary education below bachelor's degree	33.2%	38.6%	
% Population age 25-64 with bachelor's degree completion and beyond	31.9%	21.5%	
<b>Labour Force Activity</b>			
% In the labour force (Participation rate)	64.7%	64.1%	
% Unemployed	7.4%	6.4%	2 <sup>nd</sup> lowest
% 60 minutes and over commuting duration	12.4%	5.4%	

†Ranking in the province, compared to other LHINs.

## Sub-Region Profiles, 2016 Census

sub-region	Grey Bruce	Huron Perth	London Middlesex	Elgin	Oxford
<b>Census Population 2016</b>					
Dependency ratio (number of "dependents" for every 100 "workers")	80.4	78.8	64.7	76.0	73.9
<b>Urban-Rural Gradient</b>					
% large urban	0.0%	0.0%	84.2%	0.0%	0.0%
% medium/small population centre	14.9%	22.8%	4.8%	50.7%	61.9%
% rural or small communities adjacent to urban areas	11.6%	6.6%	8.6%	23.8%	9.2%
% rural and small town	73.5%	70.6%	2.4%	25.5%	28.9%
Land Area (sq km)	7,388	5,618	3,317	1,881	2,040
Population Density (persons per square kilometre)	19.9	24.2	137.3	47.3	54.4
<b>Population by Household and Families</b>					
% of people age 65+ living alone	24.7%	25.9%	27.8%	25.1%	24.6%
% Of dwellings in need of major repairs	7.0%	6.0%	5.8%	7.0%	6.2%
% of households with an insufficient # of bedrooms	2.0%	2.4%	4.1%	3.0%	2.3%
<b>Language</b>					
% who report English as their mother tongue	93.0%	90.2%	80.1%	86.1%	90.3%
% who report French as their mother tongue	1.1%	0.7%	1.5%	1.1%	1.2%
% with no knowledge of English or French	0.4%	0.8%	1.4%	0.7%	0.4%
% Francophone	1.1%	0.7%	1.8%	1.1%	1.2%
<b>Population (in Private Households) Living in Low Income</b>					
% Population living below low-income measure (LIM-AT)	14.5%	12.2%	17.2%	14.3%	10.8%
% Children living in low income households/LIM (age<6)	21.0%	19.3%	24.3%	21.4%	15.8%
% Children living in low income households/LIM (age<18)	18.8%	16.1%	22.4%	18.8%	13.7%
% seniors living in low income households/LIM (age 65+)	12.7%	11.4%	11.7%	12.8%	10.9%
<b>Population by Income Quintiles</b>					
% Economic families in Income quintile 1 - lowest income	20.3%	17.2%	22.7%	20.1%	15.8%
% Economic families in Income quintile 2	21.1%	22.5%	19.6%	24.0%	21.7%
% Economic families in Income quintile 3	19.8%	22.7%	19.5%	22.2%	23.1%
% Economic families in Income quintile 4	19.6%	21.4%	19.8%	20.1%	22.6%
% Economic families in Income quintile 5 - highest income	19.2%	16.2%	18.4%	13.7%	16.8%



sub-region	Grey Bruce	Huron Perth	London Middlesex	Elgin	Oxford
<b>Immigration</b>					
% of population who are immigrants	7.8%	8.2%	20.3%	11.9%	9.9%
% of population who arrived within 5 years	0.4%	0.6%	2.6%	0.8%	0.5%
% first generation Canadian (children of immigrants)	8.2%	8.8%	22.6%	12.9%	10.5%
<b>Visible Minorities</b>					
% of population who are visible minorities	2.4%	2.7%	17.0%	3.0%	3.2%
<b>Indigenous Identity</b>					
% of population of Aboriginal identity	3.7%	1.4%	2.5%	2.3%	1.9%
% population First Nations identity	2.5%	0.9%	1.8%	1.5%	1.1%
% population Metis identity	1.1%	0.4%	0.6%	0.6%	0.7%
% population Inuk identity	0.0%	0.0%	0.0%	0.0%	0.0%
% Multiple Aboriginal responses	0.0%	0.0%	0.0%	0.0%	0.0%
% Aboriginal responses not included elsewhere	0.1%	0.0%	0.1%	0.0%	0.1%
<b>Educational attainment</b>					
% Population age 25-64 with less than high school	13.4%	16.1%	9.9%	17.0%	14.3%
% Population age 25-64 with high school completion	27.8%	30.2%	24.6%	29.0%	32.0%
% Population age 25-64 with post-secondary education below bachelor's degree	42.1%	39.1%	36.6%	41.7%	40.1%
% Population age 25-64 with bachelor's degree completion and beyond	16.7%	14.6%	28.9%	12.3%	13.5%
<b>Labour Force Activity</b>					
% In the labour force (Participation rate)	60.3%	67.4%	64.1%	63.4%	66.7%
% Unemployed	6.2%	4.6%	7.4%	6.4%	4.8%
% 60 minutes and over commuting duration	6.9%	5.4%	5.1%	5.0%	4.8%

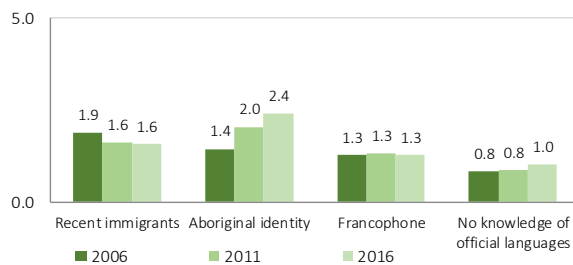
## South West

### 2016 Census Profile Summary

#### Number of private dwellings

2006	394,286
2011	417,645
2016	432,104

#### Immigration, identity and language (% of population)

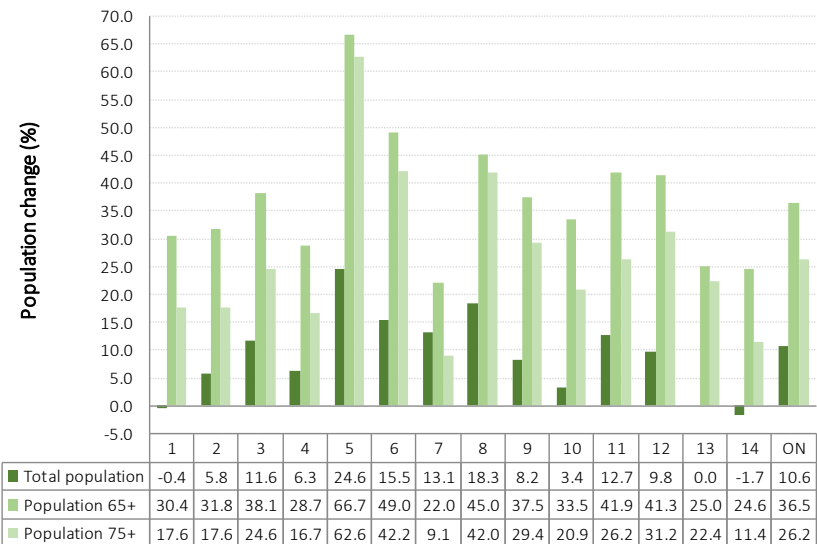


#### Population change (2006-2016)

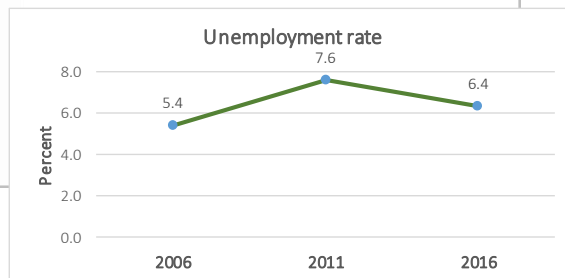
The growth of the senior (65+) population across LHINs ranged from 67% in Central West to 22% in Toronto Central.

The growth of the population age 75+ in South West between 2006 and 2016 was 17.6%, compared to 26.2% for the province as a whole. Total LHIN population growth was 5.8% for the same period.

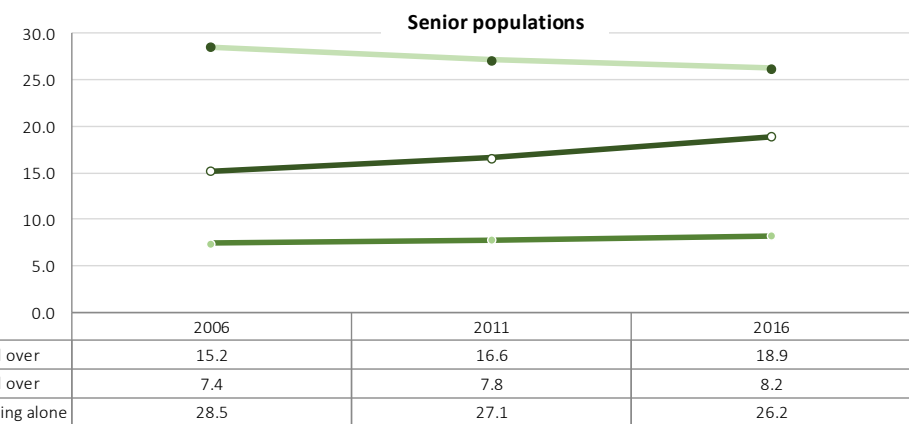
#### Population change, 2006 to 2016, by LHIN



#### Change in unemployment rate, 2006 to 2016 = 17.3%



#### Percent population



## Births and Mortality

### Births and Maternal Age

- In FY 2016/17, there were 10,047 pregnancies and 10,189 births in South West women. 95% of births took place in a hospital; the remaining 5% were in the home, birth centre or other (including nursing stations, births outside of Ontario and other Ontario locations).
- In 2016, the crude birth rate (per 1,000) population in South West was 9.7.
  - By sub-region, **Oxford** sub-region had the 8<sup>th</sup> highest crude birth rate in the province (11.5).
- The fertility rate per 1,000 South West females of reproductive age (15 to 49) was 44.4.
  - By sub-region, **Oxford** sub-region had the 7<sup>th</sup> highest fertility rate among 15 to 49 year olds in the province (53.3).
- For teenagers (15 to 19), the fertility rate per 1,000 South West females was 9.8.
- In FY2016, 2.5% of women who gave birth were under 20 years of age. 16.5% of women were 35 years or older.
- In 2016, the overall mean age of mothers giving birth in this LHIN was 29.4.
- In 2016, the stillbirth rate per 1,000 live births in South West was 9.7.

### Multiple Births

- The multiple live birth rate per 100 live births in 2016 was 2.7, the 2<sup>nd</sup> lowest rate in the province.

### Pre-Term Births

- In 2016, the pre-term birth rate per 100 live births was 7.6.
  - By sub-region, **Elgin** had the 6<sup>th</sup> lowest pre-term birth rate in the province (6.0).

### Size for Gestational Age and Birth Weight

- The low birth weight rate per 100 live births was 5.9, the 2<sup>nd</sup> lowest in the province.
  - By sub-region, **Elgin** had the 8<sup>th</sup> lowest low birth weight rate in the province (4.5).
- In FY2016, the small for gestational age rate per 100 live births was 7.4, the 2<sup>nd</sup> lowest rate in the province.
  - By sub-region, **Oxford** (5.8) and **Grey Bruce** (5.9) have the 5<sup>th</sup> and 7<sup>th</sup> lowest small for gestational age rates in the province.
- The large for gestational age rate per 100 live births was 12.1.
  - By sub-region, **Oxford** (15.8) had the 7<sup>th</sup> highest rate in the province.

### Attendants, Assisted Delivery & Epidural Anaesthesia during Labour

- In South West, 55.6% of hospital births were attended by an obstetrician, the 2<sup>nd</sup> lowest proportion in the province.
- Among vaginal deliveries, the overall assisted delivery rate for South West women was 8.2, the 2<sup>nd</sup> lowest rate in the province. The assisted delivery rate using vacuum extraction was the **lowest** (3.6) in the province. In South West, the assisted delivery rate using forceps was 4.4.
- The epidural rate for vaginal deliveries was 58.8. Epidural rate for all deliveries was 51.5.

### Caesarean Deliveries

- In FY 2016/17, the total Caesarean section rate per 100 deliveries was 23.8, the **lowest** rate in the province.
- The rate of primary Caesarean section rate (the mother's first Caesarean, regardless if she had given birth vaginally before) was 16.1 per 100 deliveries. Primary Caesarean section rate was lower in women under 35 years of age (15.9) compared to those 35 and over (17.0). All of these rates were the 2<sup>nd</sup> lowest in the province.
- The rate of repeat Caesarean sections in South West was 72 per 100 deliveries, the **lowest** rate in the province.

### Breastfeeding

- The rate of exclusive breastfeeding at discharge among term live births was 68.8% in this LHIN.

## Births and Maternal Outcomes, South West

	South West	Ontario	Comments <sup>†</sup>
Total births in Ontario, LHIN of maternal residence	10,189	141,163	
Hospital	9,650	136,505	
Home	520	3,813	
Birth Centre	0	572	
Crude birth rate (per 1,000 population)	9.7	9.8	
Stillbirth rate (per 1,000 live births)	9.7	8.1	
Multiple live birth rate (per 100 live births)	2.7	3.3	2 <sup>nd</sup> lowest
Rate of preterm birth (<37 weeks) (%) <sup>*</sup>	7.9%	8.2%	
Preterm birth rate (per 100 live births) <sup>**</sup>	7.6	8.1	
Total pregnancies in Ontario, LHIN of maternal residence	10,047	138,781	
Fertility rate (per 1,000 females of reproductive age)			
Overall rate (15 to 49)	44.4	41.2	
Teen rate (15 to 19)	9.8	6.3	
Distribution of maternal age (%)			
<20	2.5%	1.9%	
≥ 35	16.5%	23.8%	
Mean age of mother at birth of first infant	27.7	29.3	
Overall mean age of mother at birth	29.4	30.7	
Rate of Caesarean delivery (%), LHIN of hospital	23.6%	28.4%	2 <sup>nd</sup> lowest
Total Caesarean Section Rate, LHIN of patient	23.8	28.4	Lowest
Primary Caesarean Section Rate, LHIN of patient	16.1	19.0	2 <sup>nd</sup> lowest
Primary C-Section Rate (< 35 years)	15.9	17.9	2 <sup>nd</sup> lowest
Primary C-Section Rate (≥ 35 years)	17.0	22.9	2 <sup>nd</sup> lowest
Repeat Caesarean Section Rate	71.7	82.7	Lowest
Epidural Rate for Vaginal Deliveries	58.8	60.3	
Epidural Rate for All Deliveries	51.5	51.0	
Assisted Delivery Rate Among Vaginal Deliveries			
Overall	8.2	12.3	2 <sup>nd</sup> lowest
Vacuum Extraction	3.6	9.1	Lowest
Forceps	4.4	2.8	3 <sup>rd</sup> highest
Healthcare provider who caught the baby for hospital births (%), LHIN of hospital			
Obstetrician	55.6%	78.8%	2 <sup>nd</sup> lowest
Family doctor	13.7%	7.4%	
Midwife	9.7%	7.4%	
Other	21.0%	6.4%	2 <sup>nd</sup> highest
Low birth weight rate (per 100 live births)	5.9	6.8	2 <sup>nd</sup> lowest
Fullterm low birth weight rate (per 100 live births)	1.9	2.0	
Births small for gestational age (%) <sup>*</sup>	7.6%	9.7%	2 <sup>nd</sup> lowest
Small for gestational age (per 100 live births) <sup>**</sup>	7.4	9.6	2 <sup>nd</sup> lowest
Births large for gestational age (%) <sup>*</sup>	11.7%	9.7%	
Large for gestational age (per 100 live births) <sup>**</sup>	12.1	9.8	3 <sup>rd</sup> highest
Rate of exclusive breastfeeding among term live hospital births (%), LHIN of maternal residence	68.8%	62.8%	

<sup>†</sup>Ranking in the province compared to other LHINs.

<sup>\*</sup> As reported by BORN Ontario

<sup>\*\*</sup> As reported by Public Health Ontario

## Maternal smoking, alcohol and drug use during pregnancy among all women who live in Ontario and who had a live birth or stillbirth (LHIN of maternal residence), 2016/17 (BORN)

- In South West, the rate of women who self-identified as non-smokers at first prenatal visit was 87.1%. At the time of labour, 88.8% were non-smokers.
  - The prevalence of smoking 1-10 cigarettes and 10+ cigarettes at the first prenatal visit was 7.6% and 4.8%, respectively.
- 4.0% of the women reported drinking alcohol. 3.5% reported using drugs during pregnancy.

	South West	Ontario	Comments <sup>†</sup>
<b>Maternal smoking at first prenatal visit (%) LHIN of maternal residence<sup>‡</sup></b>			
% women who reported smoking (0) cigarettes/day	87.1%	90.7%	
% women who reported smoking (1 – 10) cigarettes/day	7.6%	5.5%	
% women who reported smoking (10+) cigarettes/day	4.8%	3.2%	
<b>Maternal smoking at time of labour (%)</b>			
% women who reported smoking (0) cigarettes/day	88.8%	92.5%	
% women who reported smoking (1 – 10) cigarettes/day	6.9%	4.6%	
% women who reported smoking (10+) cigarettes/day	3.9%	2.6%	
Alcohol consumption during pregnancy (%)	4.0%	2.6%	
Drug and substance exposure during pregnancy (%)	3.5%	2.3%	

<sup>†</sup>Ranking in the province compared to other LHINs.

## Life Expectancy

- Life expectancy at birth for both males and females in 2012-2014 was 81.4 years. By sex, life expectancy at birth for males in South West LHIN was 79.2 years, and 83.5 years for females.
- Life expectancy at age 65 for both sexes from 2012-2014 was 20.5 years. By sex, life expectancy at age 65 for males in South West LHIN was 18.9 years, and 21.9 years for females.

	South West LHIN	Ontario	Rank among LHINs <sup>†</sup>
<b>Life Expectancy</b>			
<b>Life expectancy at birth- Both Sexes 2012-14</b>	81.4	82.3	
<b>Life expectancy at birth- Male 2012-14</b>	79.2	80.2	
<b>Life expectancy at birth- Female 2012-14</b>	83.5	84.3	
<b>Life expectancy at age 65- Both Sexes 2012-14</b>	20.5	20.9	
<b>Life expectancy at age 65- Male 2012-14</b>	18.9	19.3	
<b>Life expectancy at age 65- Female 2012-14</b>	21.9	22.2	

<sup>†</sup>Ranking in the province compared to other LHINs (highest and lowest 2).

## Mortality and Potential Years of Life Lost

- In 2012, 7,827 South West LHIN residents died.
- The all-cause mortality rate for LHIN residents was 818 per 100,000 population in 2012.
  - By sub-region, **Grey Bruce** had the 6<sup>th</sup> highest all-cause mortality rate in the province (1,010).
- Ischaemic heart disease was the leading cause of death in South West LHIN, followed by Dementia and Alzheimer's disease and Cancer of lung and bronchus.
- 45,310 years of potential life were lost by LHIN residents in 2012.
- The LHIN's potential years of life lost (PYLL) rate for 2012 was 5,129 per 100,000 population aged less than 75. Since 2007, the PYLL rate decreased by 3.6% for South West LHIN residents.
- In 2012, South West LHIN had the third highest PYLL rate for perinatal conditions and transport accidents.

## Mortality, Potential Years of Life Lost

	South West LHIN	Ontario	Rank among LHINs†	Range across SW sub-regions (2010-2012)
<b>Mortality, 2012</b>				
Total deaths, 2012	7,827	90,525		804-3,298
% change in total deaths (2007-2012)	1.1%	4.1%		NA
All-cause mortality rate per 100,000 population	818.0	675		737.8-1,010.0
% change in all-cause mortality rate (2007-2012)	-0.6%	-0.7%		NA
% of deaths that were premature (age < 75)	36.1%	37.3%		32.0%-39.6%
<b>Top 10 leading causes of death, 2012 (rates per 100,000 population)<sup>3</sup></b>				
Ischaemic heart disease	131.5	98.0		99.1-181.6
Dementia & Alzheimer's disease	62.7	55.6		54.2-76.3
Cancer of lungs & bronchus	58.9	50.3		52.4-67.5
Cerebrovascular diseases	46.5	36.6		38.2-63.1
Chronic lower respiratory diseases	39.1	28.4		30.1-51.7
Cancer of colon, rectum, anus	31.0	23.4		26.0-40.3
Diabetes	26.8	20.7		20.6-36.9
Cancer of lymph, blood & related	25.0	20.0		22.9-28.3
Falls	17.9	17.4		16.8-23.6
Influenza & pneumonia	21.3	15.2	2 <sup>nd</sup> highest	NA
<b>Potential years of life lost (PYLL), 2012</b>				
Total PYLL, 2012	45,310	551,256		4,638-19,657
% change in PYLL (2007-2012)	-2.2%	-0.6%		NA
PYLL rate per 100,000 population (age < 75)	5,129	4,405		4,818.5-5,737.5
% change in PYLL rate (2007-2012)	-3.6%	-5.0%		NA
<b>Top 10 leading causes of PYLL, 2012 (rates per 100,000 population, age &lt; 75)<sup>4</sup></b>				
Ischaemic heart disease	437.2	406.8		400.0-667.4
Cancer of lung & bronchus	345.4	322.6		317.4-419.7
Intentional self-harm	304.7	284.7		129.2-450.1
Perinatal conditions	286.5	253.3		184.0-306.0
Accidental poisoning	250.1	190.6		105.0-284.6
Transport accidents	283.6	171.8		182.7-370.1
Cancer of lymph, blood & related	161.8	149.1		NA
Congenital malformations, deformations,	189.6	149.0		83.4-352.8
Cancer of breast	150.0	147.0		114.5-258.1
Cancer of colon, rectum, anus	176.5	141.3		157.0-235.7

†Ranking in the province, compared to other LHINs.

<sup>3</sup> Mean rate from 2010-2012

<sup>4</sup> Mean rate from 2010-2012

## General Health, Risk Factors, and Prevention

### General Health

- In 2015-16, 60% of South West LHIN residents said they had very good or excellent health.
- 71% reported very good or excellent mental health. In the South West LHIN, the proportion reporting very good or excellent declined by 8% between 2005 and 2014<sup>5</sup>. It also declined in Ontario.
  - Compared to Ontario, very good or excellent mental health is significantly more prevalent in the **Elgin** sub-region.
- 20% of South West LHIN residents reported that most days were “quite a bit” or “extremely” stressful.

### Prevention

- 91% of South West LHIN residents reported having a regular medical doctor.
  - Compared to Ontario, the proportion of people with a regular medical doctor was **significantly higher** in the sub-regions of **Huron Perth** and **Oxford**.
- Though the rate of having a medical doctor was similar to Ontario, a significantly smaller proportion of people in the South West LHIN (71%), compared to Ontario (74%) consulted a family doctor/general practitioner in the preceding year.
- 34% of South West LHIN residents indicated receiving a flu shot in the year preceding the survey.

### Risk Factors

- 19% of South West LHIN residents reported daily or occasional smoking in 2015-16. Smoking rates have generally been declining over time.
  - Compared to Ontario, **significantly higher** smoking rates are found in the sub-regions of **Elgin** and **Oxford**.
- 22% of South West LHIN residents reported heavy drinking, **significantly higher** than the Ontario rate (18%). Heavy drinking is defined as having consumed 5 or more drinks for males and 4 or more drinks for women on at least one occasion at least once a month during the past year.
- Approximately 3 in 5 (63%) adult South West LHIN residents were either overweight or obese. Overweight and obesity are rising over time in the South West LHIN and Ontario overall.
  - Overweight or obesity rates were **significantly higher** than Ontario in **Grey Bruce**, **Huron Perth**, and **Elgin** sub-regions.
- 41% of South West LHIN residents were physically inactive—now defined as less than 150 minutes of moderate to vigorous activity per week.
- 71% of South West LHIN residents did not consume enough fruits and vegetables (i.e., had fewer than 5 servings of fruits or vegetables daily).
  - Compared to Ontario, the proportion of residents consuming less than 5 servings per day was **significantly lower** in **Huron Perth** sub-region.

---

<sup>5</sup> 2005 to 2014 rates are not directly comparable with those from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.



## General Health, Risk Factors, and Prevention, South West LHIN

	South West LHIN 2015-16	Ontario (2015-16)	Rank among LHINs <sup>†</sup> (2015-16)	Range across South West sub-regions (2011-14)*
<b>General Health</b>				
General health, % of the population age 12+ with...				
Very good or excellent self-perceived health	60%	61%		57-63%
Very good or excellent self-perceived mental health	71%	71%		68-76%
Days that are 'quite a bit' or 'extremely' stressful (age 15+)	20%	22%		
<b>Prevention</b>				
Use of Health Services and Preventive Care, % of the population age 12+ who...				
Have a regular medical doctor	91%	90%		91-97%
Have consulted with family doctor/general practitioner (past yr)	71% <sup>-1</sup>	74%		
Received flu shot in the past year	34%	33%		
<b>Risk Factors</b>				
Risk factors, % of the population age 12+ who...				
Are daily or occasional smokers	19%	17%		18-25%
Are exposed to second-hand smoke in the home	8.3%	6.9%		
Are heavy drinkers	22% <sup>1</sup>	18%		
Are overweight or obese (age 18+)	63%	61%		54-61%
Are overweight (age 18+)	34%	35%		33-39%
Are obese (age 18+)	29%	26%		20-28%
Are physically inactive	41%	42%		42-51%
Consume < 5 servings of fruits/vegetables daily	71%	72%		56-63%

\*2011-2014 sub-region rates are not directly comparable with LHIN and Ontario rates from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

<sup>†</sup>Top or bottom 3 ranking in the province, compared to other LHINs. Interpret with caution, rank based on point estimate, which may or may not be significantly different from Ontario. See significance flags for each measure below.

<sup>1</sup> LHIN is **significantly higher** than Ontario

<sup>-1</sup> LHIN is **significantly lower** than Ontario

<sup>c</sup> Estimates with high sampling variability (CV between 16.6 -33.3) must be used with caution.

## Chronic Conditions

### **Prevalence, mortality, hospital separations and hospital days of stay for selected chronic conditions**

- 41.7% of South West residents (aged 12+) reported having a one or more chronic conditions while 17% reported having two or more chronic conditions.
- The mean health care cost per user for South West residents in 2015/16 was \$3,150 (\$2,750 for Ontario).
- 5.9% of the patients were complex (4+ conditions), 5.8% for Ontario.
- The mean healthcare cost of a complex patient was \$24,800 compared to \$22,050 for Ontario. South West LHIN was among the 3 LHINs with the highest mean cost per complex patient.
- 6.0% of the patients were high cost user patients, 5.0% for Ontario.
- The mean healthcare cost per high cost user was \$37,800 compared to \$37,700 for Ontario.
- The hospitalization rate (per 100,000 population) for diabetes in South West LHIN was 121 compared to 100 for Ontario. South West LHIN was among the 3 LHINs with the highest rates.

### Chronic Conditions, Complex Patients

Condition	South West	Ontario	Comment
<b>Self-reported prevalence (2015-16), rate per 100, age 12+</b>			
Arthritis	22.2	20.6	
Asthma	8.9	8.7	
Cancer	1.7	1.3	
Chronic Obstructive Pulmonary Disease (COPD) (age 35+)	4.3	4.0	
Diabetes	7.3	7.4	
High blood pressure	18.2	18.2	
Heart disease	5.2	4.6	
Suffer from effects of stroke	1.5 C	1.3	
Have a chronic condition	41.7	39.6	
Have multiple chronic conditions <sup>1</sup>	17.0	16.2	

C:  $0.15 < CV \leq 0.25$  Marginal (Use with caution-high sampling variability)

D:  $0.25 < CV \leq 0.35$  Marginal (Use with caution-high sampling variability)

1 - Of the selected conditions on this list

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>			
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	31.6	34.3	
Cardiovascular disease	945.2	916.9	
Cerebrovascular disease	145.2	133.2	
COPD	199.9	171.8	
Diabetes	121.3	100.2	
Hypertension	20.6	18.0	
Ischemic heart disease	306.5	314.8	
Lower respiratory disease	234.1	208.9	
Respiratory disease	675.4	599.7	
Stroke	125.2	112.5	
<b>Complex Patients and high cost users, 2015/16</b>			
Mean health care cost per user \$	\$ 3,150	\$ 2,750	
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$ 24,800	\$ 22,050	
# of patients that are complex	46,985	680,115	
% of all patients (health care users) that are complex	5.9%	5.8%	
<b>High cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$ 37,800	\$ 37,700	
# of patients that are high cost users	47,890	581,670	
% of patients that are high cost users	6.0%	5.0%	

### GREY BRUCE SUB-REGION (201)

- The prevalence rate (per 100) for the population with arthritis (14+) was 23.2 (Ontario - 17.3). **Grey Bruce** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with high blood pressure was 22 (Ontario - 18.1). **Grey Bruce** sub-region's rate was **significantly higher** than Ontario.
- The mean health care cost per user in **Grey Bruce** sub-region was \$3,200 (Ontario - \$2,750).
- 6.4% of patients from **Grey Bruce** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Grey Bruce** sub-region was \$21,250 (Ontario - \$22,050).
- 6.7% of patients from **Grey Bruce** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Grey Bruce** sub-region was \$33,400 (Ontario - \$37,700). It was among the 8 sub-regions with the lowest mean cost per high cost user.

## Chronic Conditions, Complex Patients

Condition	Grey Bruce	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	23.2	17.3	19
Asthma	9.5	7.8	17
Diabetes	7.4	6.8	32
High blood pressure	22.0	18.1	17
Heart disease	4.9	5.0	42

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	27.9	34.3
Cardiovascular disease	1,115.4	916.9
Cerebrovascular disease	158.9	133.2
COPD	237.4	171.8
Diabetes	152.0	100.2
Hypertension	11.4	18.0
Ischemic heart disease	422.0	314.8
Lower respiratory disease	268.7	208.9
Respiratory disease	696.6	599.7
Stroke	136.3	112.5

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,200	\$ 2,750
Complex Patients (4+ conditions)		
Mean health care cost per complex patient \$	\$21,250	\$ 22,050
# of patients that are complex	7,700	680,115
% of all patients (health care users) that are complex	6.4%	5.8%
High cost users (Top 5%) #		
Mean health care cost per high cost user \$	\$33,400	\$ 37,700
# of patients that are high cost users	8,085	581,670
% of patients that are high cost users	6.7%	5.0%

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## HURON PERTH SUB-REGION (202)

- The prevalence rate (per 100) for the population with asthma was 5.6 (Ontario - 7.8). Huron Perth sub-region's rate was **significantly lower** than Ontario.
- The mean health care cost per user in Huron Perth sub-region was \$3,100 (Ontario - \$2,750).
- 5.6% of patients from Huron Perth sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in Huron Perth sub-region was \$24,200 (Ontario - \$22,050).
- 6.3% of patients from Huron Perth sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in Huron Perth sub-region was \$35,550 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Huron Perth	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	18.6	17.3	39
Asthma	5.6	7.8	64
Diabetes	6.8	6.8	38
High blood pressure	20.5	18.1	28
Heart disease	4.9	5.0	41

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	26.2	34.3
Cardiovascular disease	1,064.5	916.9
Cerebrovascular disease	166.8	133.2
COPD	213.6	171.8
Diabetes	110.6	100.2
Hypertension	24.1	18.0
Ischemic heart disease	396.7	314.8
Lower respiratory disease	245.0	208.9
Respiratory disease	705.4	599.7
Stroke	143.5	112.5

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,100	\$ 2,750
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$24,200	\$ 22,050
# of patients that are complex	6,125	680,115
% of all patients (health care users) that are complex	5.6%	5.8%
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$35,550	\$ 37,700
# of patients that are high cost users	6,825	581,670
% of patients that are high cost users	6.3%	5.0%

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## LONDON MIDDLESEX SUB-REGION (203)

- The prevalence rate (per 100) for the population with asthma was 9.8 (Ontario - 7.8). **London Middlesex** sub-region's rate was **significantly higher** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 204.2 (Ontario - 314.8). **London Middlesex** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **London Middlesex** sub-region was \$3,150 (Ontario - \$2,750).
- 5.9% of patients from **London Middlesex** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **London Middlesex** sub-region was \$26,100 (Ontario - \$22,050).
- 5.7% of patients from **London Middlesex** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **London Middlesex** sub-region was \$40,500 (Ontario - \$37,700).



## Chronic Conditions, Complex Patients

Condition	London Middlesex	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	18.5	17.3	40
Asthma	9.8	7.8	15
Diabetes	6.8	6.8	39
High blood pressure	17.9	18.1	45
Heart disease	4.4	5.0	55

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	33.7	39
Cardiovascular disease	782.4	65
Cerebrovascular disease	124.8	56
COPD	163.8	47
Diabetes	108.8	37
Hypertension	20.9	19
Ischemic heart disease	204.2	74
Lower respiratory disease	200.4	47
Respiratory disease	609.8	44
Stroke	109.0	49

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,150	27.5
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$26,100	10
# of patients that are complex	22,830	680,115
% of all patients (health care users) that are complex	5.9%	45
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$40,500	10.5
# of patients that are high cost users	22,005	581,670
% of patients that are high cost users	5.7%	37

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

### ELGIN SUB-REGION (204)

- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 197.9 (Ontario - 133.2). **Elgin** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 324.3 (Ontario - 171.8). **Elgin** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for hypertension was 32.8 (Ontario - 18). **Elgin** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for stroke was 172.3 (Ontario - 112.5). **Elgin** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **Elgin** sub-region was \$3,450 (Ontario - \$2,750).
- 6.0% of patients from **Elgin** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Elgin** sub-region was \$26,400 (Ontario - \$22,050).
- 6.3% of patients from **Elgin** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Elgin** sub-region was \$40,400 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Elgin	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	20.1	17.3	32
Asthma	7.6	7.8	42
Diabetes	6.4	6.8	42
High blood pressure	16.8	18.1	52
Heart disease	6.6	5.0	15

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	38.9	29.5
Cardiovascular disease	1,109.8	18
Cerebrovascular disease	197.9	4
COPD	324.3	8
Diabetes	145.7	18
Hypertension	32.8	4
Ischemic heart disease	319.1	44
Lower respiratory disease	364.0	11
Respiratory disease	944.7	10
Stroke	172.3	6

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,450	15.5
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$26,400	9
# of patients that are complex	4,535	680,115
% of all patients (health care users) that are complex	6.0%	41
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$40,400	12.5
# of patients that are high cost users	4,805	581,670
% of patients that are high cost users	6.3%	23

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

### OXFORD SUB-REGION (205)

- The mean health care cost per user in **Oxford** sub-region was \$3,000 (Ontario - \$2,750).
- 5.6% of patients from **Oxford** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Oxford** sub-region was \$23,850 (Ontario - \$22,050).
- 6.0% of patients from **Oxford** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Oxford** sub-region was \$34,700 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Oxford	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	16.8	17.3	45
Asthma	8.9	7.8	25
Diabetes	5.7	6.8	52
High blood pressure	16.2	18.1	55
Heart disease	4.9	5.0	40

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	26.3	34.3
Cardiovascular disease	1,237.8	916.9
Cerebrovascular disease	174.5	133.2
COPD	226.0	171.8
Diabetes	142.7	100.2
Hypertension	22.7	18.0
Ischemic heart disease	451.0	314.8
Lower respiratory disease	252.3	208.9
Respiratory disease	758.0	599.7
Stroke	144.4	112.5

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,000	\$ 2,750
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$23,850	\$ 22,050
# of patients that are complex	5,300	680,115
% of all patients (health care users) that are complex	5.6%	5.8%
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$34,700	\$ 37,700
# of patients that are high cost users	5,630	581,670
% of patients that are high cost users	6.0%	5.0%

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## Human Resources

### Physicians

- In 2016, there were approximately 2183 physicians in South West LHIN.
  - This represents the equivalent of approximately 222 physicians for every 100,000 persons in South West LHIN.
  - The number of physicians in South West LHIN increased by over 7% between 2013 and 2016 with similar growth occurring among both family medicine physicians and specialists.
- Between 2013 and 2016, there was an increase of approximately 66 family physicians in South West LHIN
  - The majority of the increase in South West LHIN occurred with 48 additional family physicians between 30-64 years of age.
- In 2016, approximately 13% of family physicians in South West LHIN were at or beyond the age of retirement (65 years of age or older).

### Nurses

- In 2016, there were 12,296 total nurses in South West LHIN.
- The total number of nurses increased by 2.2% between 2013 and 2016,
  - While there was a decrease in the number of Registered Nurses in South West LHIN between 2013 and 2016, there were substantial increases in the number of Nurse Practitioners (37% increase) and Registered Practical Nurses (12% increase) during the same time period.
- In 2016, there were approximately 1,253 nurses for every 100,000 residents of South West LHIN.

### Other Allied Health Professionals

- Between 2013 and 2016, the greatest growth in the number of allied health professionals in South West LHIN was among midwives (an increase of 12 or approximately 22%) and pharmacists (an increase of 124 or about 16%).
- There was notable growth (increase of 46 or approximately 10%) in the number of occupational therapists in South West LHIN between 2013 and 2016.
- The number of psychologists in South West LHIN also increased by 13 or 5.6% between 2013 and 2016.
- Opticians and optometrists in South West LHIN experienced 7% and 1.2% reductions respectively in their raw numbers (8 fewer opticians and 2 fewer optometrists) and slightly higher reductions in their numbers per capita.

South West LHIN					
Physicians	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Total Family Medicine Physicians</b>					
Number of family medicine physicians	892	911	927	958	7.4%
Rate per 100,000 population	92.8	94.2	95.3	97.6	5.2%
<b>Total Specialists</b>					
Number of specialists	1147	1175	1199	1225	6.8%
Rate per 100,000 population	119.3	121.5	123.2	124.8	4.6%
<b>Total Physicians</b>					
Number of total physicians	2039	2086	2126	2183	7.1%
Rate per 100,000 population	212.1	215.7	218.5	222.5	4.9%

Family Physicians, by age group - count					
Age <30	22			30	36.4%
Age 30-64	752			800	6.4%
Age 65-74	106			110	3.8%
Age 75+	12			18	50.0%
Grand Total	892			958	7.4%
Age 65+	118			128	8.5%

Family Physicians, by age group – percent					
Age <30	2.5%			3.1%	27.0%
Age 30-64	84.3%			83.5%	-0.9%
Age 65-74	11.9%			11.5%	-3.4%
Age 75+	1.3%			1.9%	39.7%
Age 65+	13.2%			13.4%	1.0%

South West LHIN					
Nurses	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Registered Nurses</b>					
Number of RNs	8592	8613	8478	8394	-2.3%
Rate per 100,000 population	893.0	890.5	871.4	855.4	-4.2%
<b>Registered Practical Nurses</b>					
Number of RPN nurses	3258	3383	3531	3648	12.0%
Rate per 100,000 population	338.6	349.8	362.9	371.7	9.8%
<b>Nurse Practitioners</b>					
Number of NP nurses	185	203	227	254	37.3%
Rate per 100,000 population	19.2	21.0	23.3	25.9	34.6%
<b>Total Nurses</b>					
Total Nurse - Number of nurses	12035	12199	12236	12296	2.2%
Total Nurse - Rate per 100,000 population	1250.8	1261.2	1258.7	1253.0	0.2%

South West LHIN					
Other Regulated Health Professionals	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Audiologists</b>					
Audiologist - Number	65	63	62	70	7.7%
Audiologist - Rate per 100,000 population	6.8	6.5	6.4	7.1	5.6%
<b>Midwives</b>					
Midwife - Number	54	58	56	66	22.2%
Midwife - Rate per 100,000 population	5.6	6.0	5.8	6.7	19.8%
<b>Occupational Therapists</b>					
Occupational Therapist - Number	463	472	495	509	9.9%
Occupational Therapist - Rate per 100,000 population	48.1	48.8	50.9	51.9	7.8%
<b>Opticians</b>					
Optician - Number	123	113	120	115	-6.5%
Optician - Rate per 100,000 population	12.8	11.7	12.3	11.7	-8.3%
<b>Optometrists</b>					
Optometrist - Number	166	166	164	164	-1.2%
Optometrist - Rate per 100,000 population	17.3	17.2	16.9	16.7	-3.1%
<b>Pharmacists</b>					
Pharmacist - Number	761	820	855	885	16.3%
Pharmacist - Rate per 100,000 population	79.1	84.8	87.9	90.2	14.0%
<b>Psychologists</b>					
Psychologist - Number	233	250	247	246	5.6%
Psychologist - Rate per 100,000 population	24.2	25.8	25.4	25.1	3.5%
<b>Speech-Language Pathologists</b>					
Speech-Language Pathologist - Number	238	243	241	241	1.3%
Speech-Language Pathologist - Rate per 100,000 population	24.7	25.1	24.8	24.6	-0.7%



## Primary Care

### Primary Care Enrolment

- Almost 768,000 South West LHIN residents were enrolled with a PEM as of 2016/2017 and almost 21% were associated with FFS physicians (n=200,498 residents).
- More than one-third (34%) of South West LHIN residents are part of a FHT that is part of a FHO.
- There are 771 physicians distributed across 66 practices, with a large majority of the physicians (n=248) across 26 practices, and 187 physicians are classified as FFS.

### Selected Measures from the Health Care Experience Survey

#### Self-reported access to, and satisfaction with, primary care

	Ontario (2017)	LHIN (2017 )	Range Across SW sub- regions (2014-2017)
Percentage who are satisfied with health care in their community	87%	89%	86% to 92%
Percentage with primary care providers (attached patients)	94%	96%	94% to 98%
Percentage who saw their primary care provider within the same day/next day when sick	40%	45%	29% to 42%
Percentage who went to ED for something that could have been treated by primary care provider	42%	50%	35% to 66%
Percentage who found it difficult to access care after-hours without going to an emergency department	53%	57%	44% to 79%
Percentage who went to walk-in clinic in past 12 months	30%	16% <sup>L</sup>	5% to 27%
Percentage who went to a walk in clinic for something that could have been treated by provider if they were available	92%	95%	85% to 93%

*H=significantly higher than the province*

*L=significantly lower than the province*

- 89% of South West LHIN residents were satisfied with health care in their community.
  - **Huron Perth** reported a **significantly higher** rate than the province at 92%.
- In 2017, 96% of South West adults (aged 16 and older) had a primary care provider, second highest of the 14 LHINs.
  - Two sub-regions report **significantly higher** attachment rates compared to the provincial value: **Oxford** (98%) and **Huron Perth** (97%).
- 45% of South West LHIN adults were able to see a primary care provider on the same day or next day if they were sick, which increased by a mean of 4.9% annually since 2013.
  - The **Elgin** and **Grey Bruce** sub-regions report **significantly lower** proportions than the province at 29% and 32% respectively.
- 50% of South West LHIN adults went to the ED for something that could have been treated by a primary care provider.
  - **Grey Bruce** (66%) and **Huron Perth** (61%) reported **significantly higher** proportions of the population who attended the ED for something that could have been dealt with in primary health care.

- In 2017, 57% of LHIN adults had difficulty accessing after-hours care without going to an emergency department.
  - In particular **Oxford, Grey Bruce, and Huron Perth** sub-regions reported **significantly higher** proportions (79%, 78%, and 66% respectively).
  - On the other hand, **London Middlesex** sub-region reported a **significantly lower** proportion compared to the province (45%).
- 16% of South West LHIN adults reported visiting a walk-in clinic in the previous 12 months, **significantly lower** than the provincial value.
  - Four sub-regions reported **significantly lower** percentages of the population who went to a walk-in clinic in the last 12 months: (**Grey Bruce, Huron Perth, Elgin, and Oxford**).
  - 95% went to a walk in clinic for something that they felt could have been treated by a primary care provider if they were available.

## Community Care

- South West LHIN ranks **lowest** in CMH&A\_Community Visits- Non Face to Face Visits per 1,000 population with 80 (province is 126).
- South West LHIN ranks **highest** in CSS\_Community Visits- Non Face to Face Visits per 1,000 population with 207 (province is 112).
- South West LHIN ranks second highest in CSS\_Community Visits-Face to Face Visits per 1,000 population 75+ with 7,547 (province is 5,365).
- South West LHIN ranks second highest in CSS\_Community Visits- Non Face to Face Visits per 1,000 population 75+ with 2,544 (province is 1,556).

## Mental Health

### Wait Time for Community Services

- Assertive Community Treatment teams and support within housing had the longest median wait times among the community mental health (MH) services in South West LHIN in 2017/18. With the exception of ACT teams, case management, counselling and treatment and vocational/employment programs, South West LHN had shorter median wait times than the province for all community MH services in 2017/18.
- Among the substance abuse (SA) services provided in South West LHIN, residential treatment and residential supportive treatment had the longest median wait times (61 and 36 days) in 2017/18. The median wait time in this LHIN was 19 and 26 days longer than the province for residential support treatment and residential treatment.
- Only community treatment is provided in this LHIN for problem gambling. The median wait time for this treatment was 12 days, two days longer than the provincial median wait time.

### Mental Health and Substance Abuse Emergency Department Visits

- In 2016/17, there were 19,331 unscheduled ED visits for South West residents where the main problem was a MH/SA condition. There were 25,773 visits with a MH/SA condition in any of the diagnostic fields.
  - Between 2013/14 and 2016/17, there was 19.3% growth in visits with a MH/SA main problem diagnosis (lower than the province's value of 20.9%) and 24.1% growth in visits with a MH/SA condition in any diagnostic field (higher than the province's value of 21.1%).
- The MH/SA ED visit rate per 1,000 population for South West LHIN residents was slightly higher than the provincial value (19.7 compared to 19.2). The main problem visit rate increased by 16.9% between 2013/14 and 2016/17.
- Visits with a MH/SA main problem diagnosis accounted for 3.3% of all ED visits for South West LHIN residents.
- In 2016/17, there were 348 ED visits of South West residents for opioid overdose. Of those, 41.1% were accidental.
- The crude rate of ED visits for opioid overdose in FY2016/17 for South West residents was 3.5, the same as the provincial value. Between 2013/14 and 2016/17, there was a 51.0% growth in the visit rate for opioid overdose for all South West residents, higher than the province (48.4%).

## Unscheduled emergency department utilization for mental health and substance abuse conditions, South West LHIN and Ontario residents, 2016/17

Measure	South West LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient<sup>†</sup></b>				
Main problem visits	19,331	268,514	19.3%	
% of total ED visits	3.3%	4.3%	-	
Any problem visits	25,773	338,260	24.1%	
% of total ED visits	4.4%	5.5%	-	
Main problem, visits per 1,000	19.7	19.2	16.9%	
Any problem, visits per 1,000	26.3	24.2	21.6%	
ED visits for opioid overdose	348	4,831	54.0%	
% of visits that were accidental	41.1%	50.1%	-	
Crude rate per 10,000 population	3.5	3.5	51.0%	

<sup>†</sup>LHIN of patient results for Ontario exclude out-of-province residents

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

### Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility

- In 2016/17, there were 20,137 unscheduled ED visits in South West LHIN hospitals, where the main problem was a MH/SA condition. 1.8% of these visits were made by homeless individuals.
- There were 5,491 admissions and 5,907 active cases who received treatment in adult designated MH units in South West LHIN hospitals. There were 5,497 discharges from these units with the total days of discharge patients equal to 144,048 days. The mean length of stay in South West LHIN MH units was 26.2 days, longer than Ontario (24.9 days). Residents from outside the LHIN accounted for 11.6% of the active cases treated in South West LHIN.
- Between 2013/14 and 2016/17, active cases, admissions and discharges increased in South West LHIN hospitals by 14.6%, 16.2% and 16.7%, respectively. The total days for discharged patients decreased by 0.9%.
- Short stay (30.5%), bipolar and depressive disorders (30.4%) and schizophrenia and psychotic disorders (21.0%) accounted for the largest proportions of active cases in South West LHIN hospitals in 2016/17. Compared with the provincial values, South West had larger proportions of active cases for short stay, neurocognitive disorders, bipolar and depressive disorders, personality disorders and all other disorders.
- There were 5,582 active cases, 5,191 admissions and 5,203 discharges for South West LHIN residents from Ontario adult designated MH units. Mean length of stay for South West LHIN residents was higher than the province (25.5 days compared to 24.8 days). 6.5% of South West LHIN resident active cases received treatment in hospitals outside the LHIN. Compared with the provincial rates, South West LHIN residents had the third highest rates of active cases, admissions, and discharges per 100,000 population age 15+.
  - By sub-region, **Huron Perth** and **Oxford** sub-regions had the 4<sup>th</sup> and 8<sup>th</sup> shortest mean length of stays among all sub-regions (12.7 and 14.0 days).
  - **Huron Perth** had the 7<sup>th</sup> highest crude rate of actives cases at 830.3 per 100,000 population. This sub-region also had the 5<sup>th</sup> highest crude rate of admissions (804.0) and 6<sup>th</sup> highest crude rate of discharges (801.4) per 100,000 population among the 76 sub-regions.
- Active cases, admissions, discharges, total days and the associated rates increased for South West LHIN residents between 2013/14 and 2016/17.

## Adult designated mental health unit utilization, South West LHIN hospitals and residents, 2016/17

Measure	South West LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient</b>				
Active cases	5,582	64,523	12.2%	
Admissions	5,191	60,197	13.3%	
Discharges	5,203	60,607	13.4%	
Total Days	132,660	1,504,690	-3.0%	
Mean Length of Stay	25.5	24.8	-	
% Outflow Active Cases	6.5%	-	-	
Active Cases per 100,000 (age 15+)	678.8	548.5	9.8%	
Admission per 100,000 (age 15+)	631.2	511.7	10.9%	
Discharges per 100,000 (age 15+)	632.7	515.2	10.9%	
<b>SCIPP Categories - % of total active cases</b>				
Short Stay	29.5%	27.4%	-	
Schizophrenia and other psychotic disorders	19.7%	27.0%	-	
Neurocognitive disorders	4.9%	3.1%	-	
Bipolar and depressive disorders	31.5%	29.6%	-	
Personality disorders	4.1%	3.0%	-	
Feeding and eating disorders	0.3%	0.4%	-	
Substance Use disorders	5.6%	5.5%	-	
Other disorders	4.3%	4.0%	-	
<b>LHIN of hospital</b>				
Active cases	5,907	64,738	14.6%	
Admissions	5,491	60,383	16.2%	
Discharges	5,497	60,795	16.7%	
Total Days (discharged patients only)	144,048	1,512,754	-0.9%	
Mean Length of Stay	26.2	24.9	-	
% Inflow Active Cases	11.6%	-	-	

‡Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

## Surgery & Diagnostic Imaging

### Day Surgery and Cardiac Catheterization Utilization

#### Day Surgery and Cardiac Catheterization Visits

- In 2016/17, there were 111,247 day surgery and ambulatory cardiac catheterization visits to South West LHIN hospitals. Residents from outside the LHIN accounted for 14.5% of the visits.
- Between 2013/14 and 2016/17, there was an increase of 10.9% in South West LHIN hospital's day surgery and cardiac catheterization visits.
- There were 103,852 day surgery and ambulatory cardiac catheterization visits for South West LHIN residents. There was an increase in both the number and rate of visits between 2013/14 and 2016/17.
- In 2016/17, 8.4% of these visits occurred in hospitals outside the LHIN.
- The following sub-regions had among the eight lowest rates outflow rate to other LHINs for all Ontario sub-regions:
  - **London Middlesex** had the 6<sup>th</sup> lowest outflow rate.
- South West LHIN residents had 105.8 day surgery and cardiac catheterization visits per 1,000 population. This rate was higher than the provincial rate of 93.9.

#### Day surgery and ambulatory cardiac catheterization visits, South West LHIN and Ontario, 2016/17

Measure	LHIN	Comments	Ontario†	LHIN % change 2013-14 - 2016/17	Range within LHINs	Range within SW sub-regions
<b>LHIN of hospital</b>						
Visits	111,247		1,322,943	10.9%	27,727 - 158,077	
% Inflow visits	14.5%				0.7% - 58.4%	
<b>LHIN of patient</b>						
Total population	981,331		13,982,984	2.0%	235,148 - 1,893,948	
Visits	103,852		1,313,103	11.1%	28,401 - 157,644	10,061 - 39,603
% Outflow visits	8.4%				3.0% - 39.0%	2.8% - 15.8%
Visits per 1,000 population	105.8		93.9	8.9%	66.8 - 151.0	83.2 - 144.0
- age 0-17 years	27.7		22.2		13.9 - 38.4	
- age 18-44 years	56.4		46.5		34.8 - 85.5	
- age 45-64 years	137.1		125.3		93.9 - 183.0	
- age 65-79 years	244.9		239.9		176.5 - 318.4	
- age 80+ years	197.4		202.7		138.5 - 260.4	

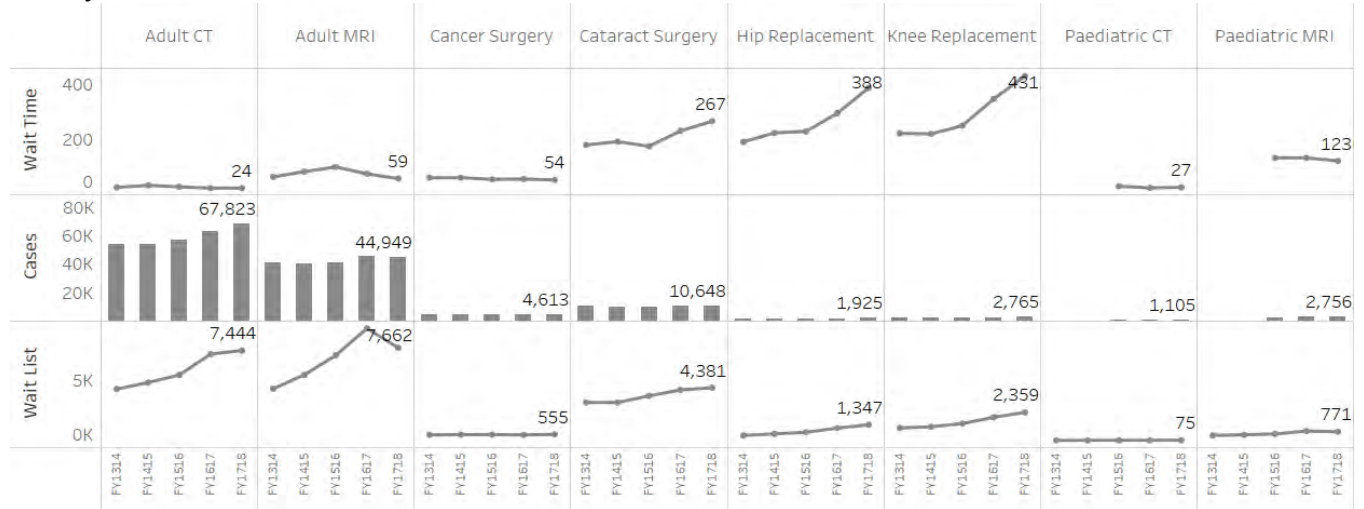
†LHIN of patient results for Ontario exclude out-of-province residents

## Surgical & Diagnostic Imaging Wait Times

### South West LHIN Priority Procedures:

### Wait 2 90<sup>th</sup> Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

#### LHIN of Treatment



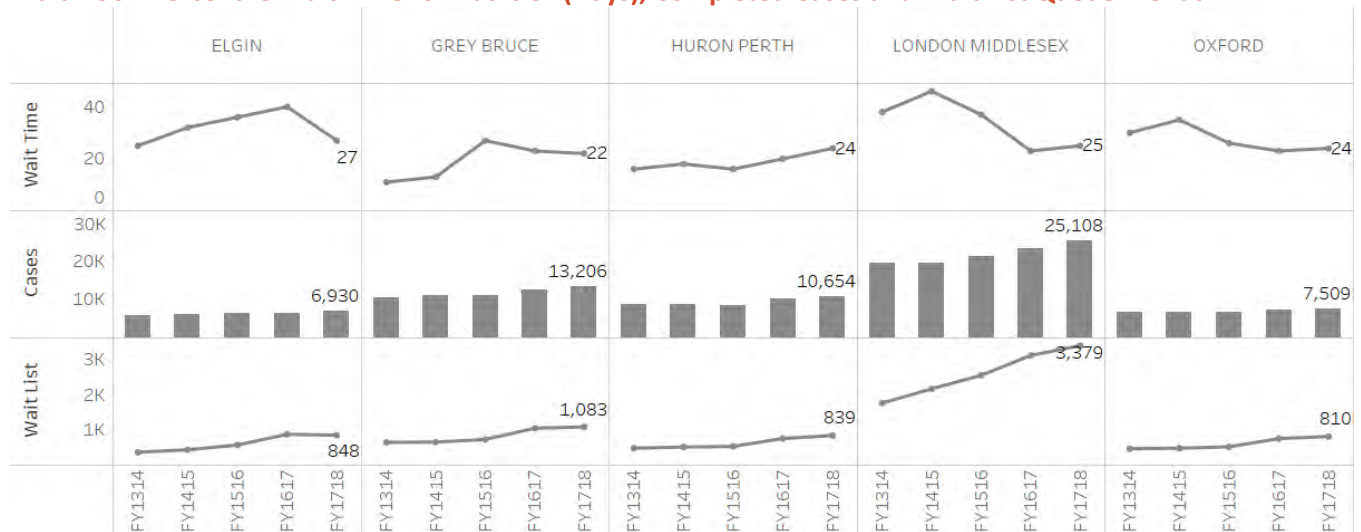


## Adult CT

- There were 67,823 adult CT scans completed in FY 2017-18; 4,926 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 24 days, similar to the previous fiscal.
- In 2017/18, hospitals in the South West LHIN had the 2<sup>nd</sup> shortest wait time for adult CT scans. [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 7,444 patients; 292 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Adult CT (Days), Completed Cases and Wait List Queue Trends



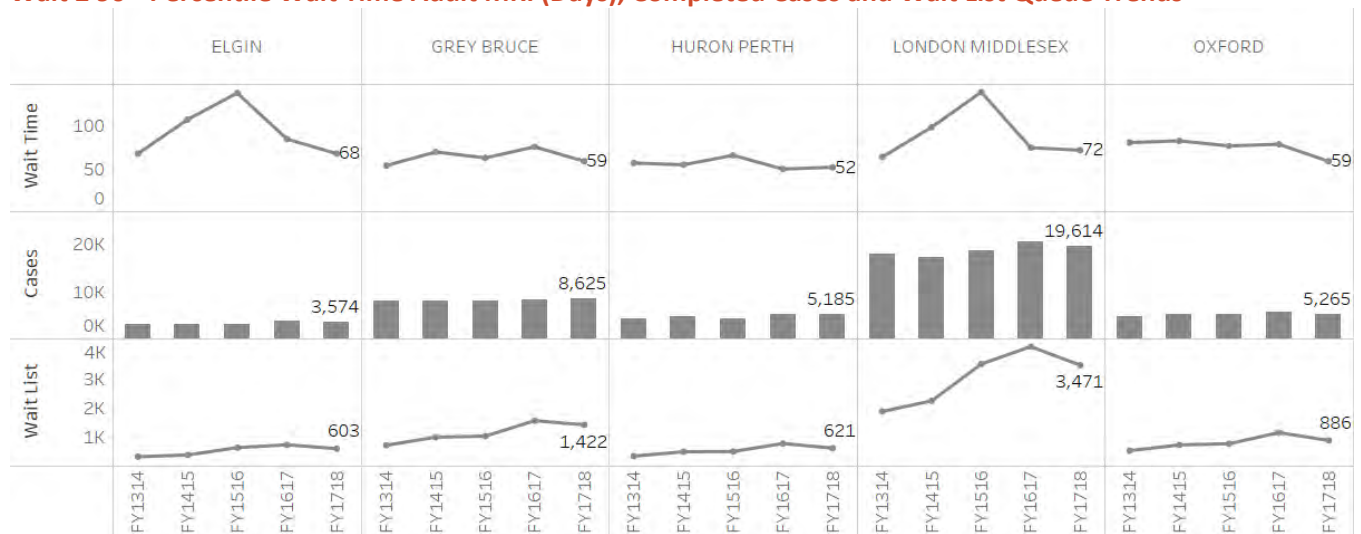
- South West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 22 days to 27 days

## Adult MRI

- There were 44,949 adult MRI scans completed in FY 2017-18; 690 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 59 days and among the **shortest** of all LHINs, 17 days shorter than the previous fiscal.
- In 2017/18, hospitals in the South West LHIN tied for the **shortest** wait time for adult MRI scans. [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 7,662 patients; 1,597 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time Adult MRI (Days), Completed Cases and Wait List Queue Trends



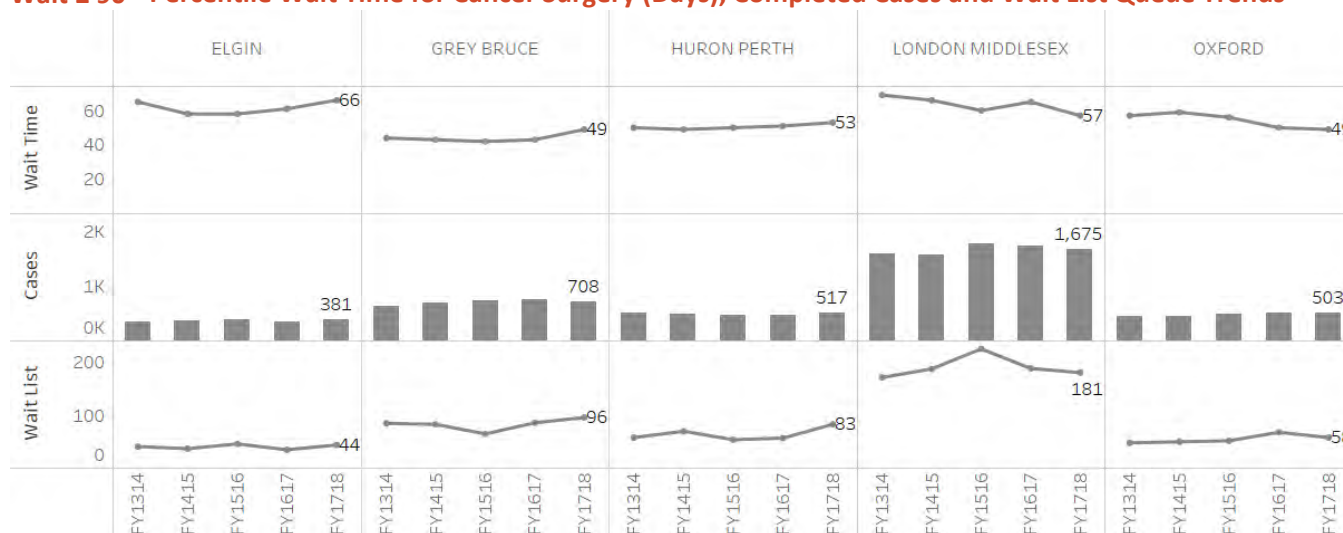
- South West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 52 days to 72 days.

## Cancer Surgery

- There were 4,613 cancer surgeries completed in FY 2017-18; 30 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 54 days, 3 days shorter than the previous fiscal.
- In 2017/18, hospitals in the South West LHIN had the 6<sup>th</sup> longest wait time for cancer surgery.
- The wait list queue at the start of FY 2017-18 was 555 patients; 38 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Cancer Surgery (Days), Completed Cases and Wait List Queue Trends



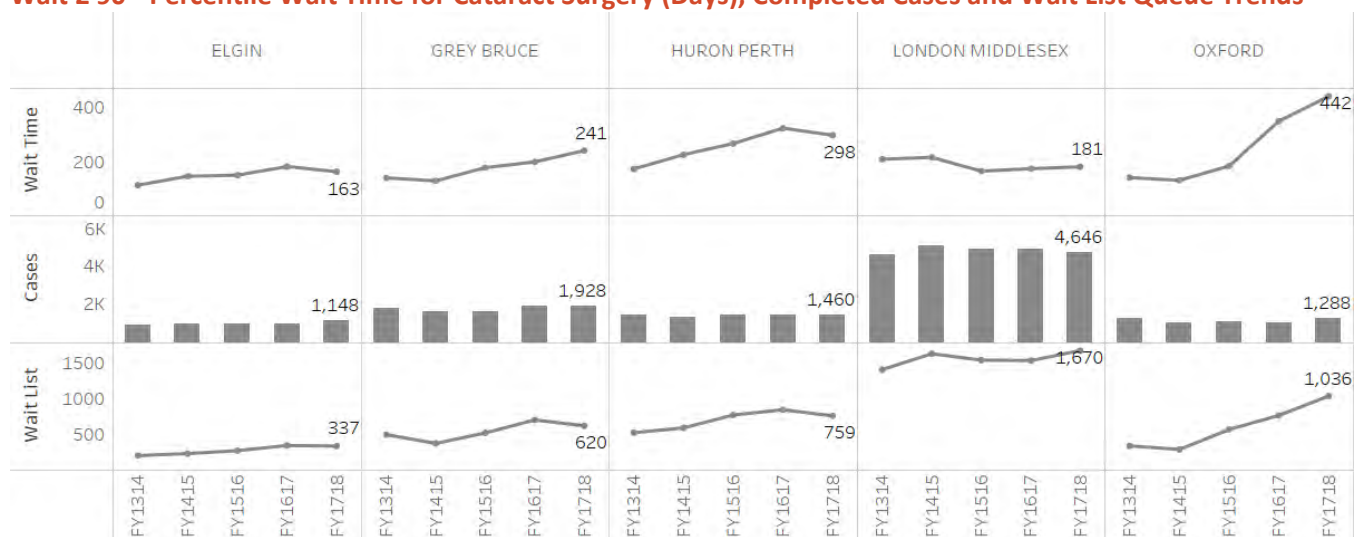
- South West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 49 days to 66 days.

## Cataract Surgery

- There were 10,648 cataract surgeries completed in FY 2017-18; 341 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 267 days, 35 days longer than the previous fiscal.
- In 2017/18, hospitals in the South West LHIN had the 5<sup>th</sup> longest wait time for cataract surgery.
- The wait list queue at the start of FY 2017-18 was 4,381 patients; 171 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Cataract Surgery (Days), Completed Cases and Wait List Queue Trends



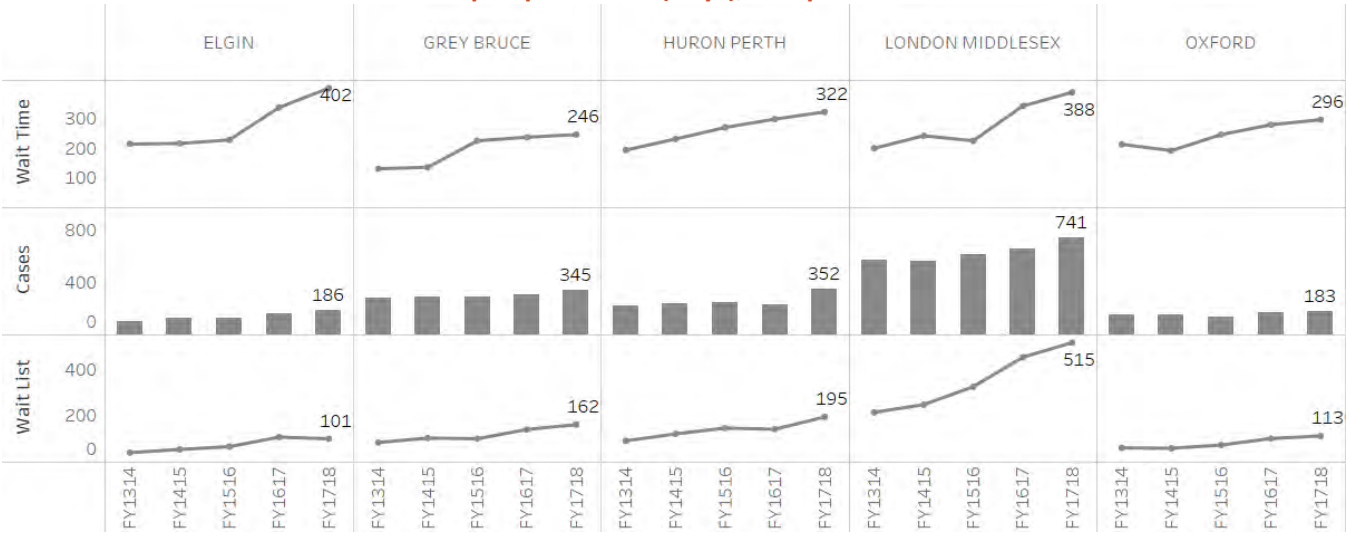
- South West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 163 days to 442 days.
- **Oxford** sub-region wait time of 442 days was the **longest** across the province for this period.

# **Hip Replacement**

- There were 1,925 hip replacement surgeries completed in FY 2017-18; 330 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 388 days and the **longest** of all LHINs, 92 days shorter than the previous fiscal.
- In 2017/18, hospitals in the South West LHIN had the **longest** wait time for hip replacement surgery.
- The wait list queue at the start of FY 2017-18 was 1,347 patients; 277 more queued compared to the previous fiscal.

## **Sub-Region of Patient Residence Comparison:**

### **Wait 2 90<sup>th</sup> Percentile Wait Time for Hip Replacement (Days), Completed Cases and Wait List Queue Trends**

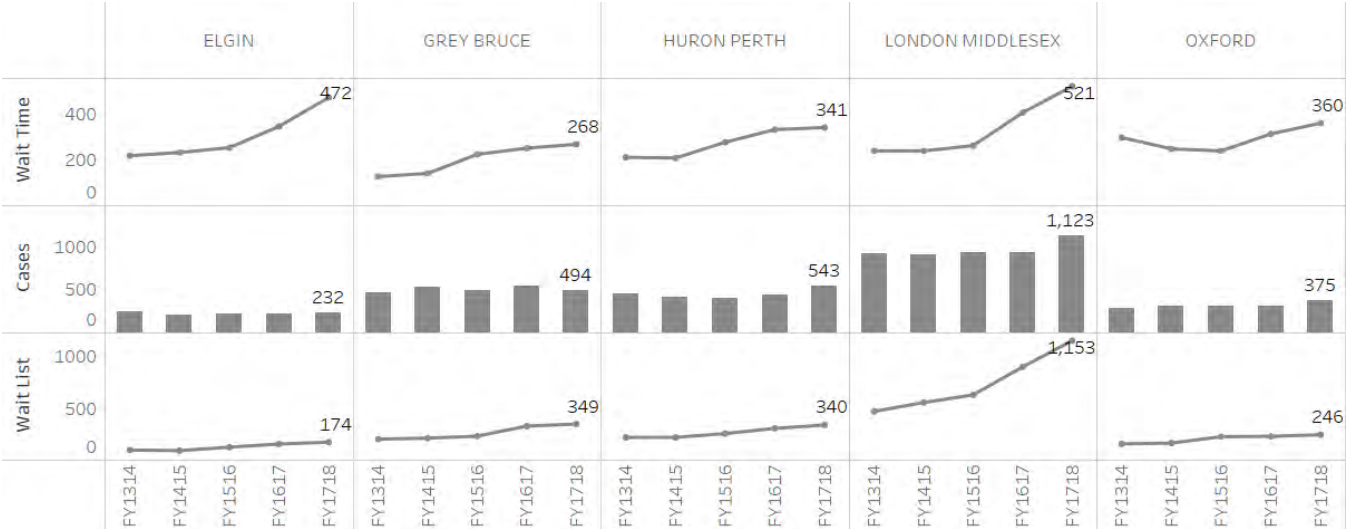


- South West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 246 days to 402 days.

# Knee Replacement

- There were 2,765 knee replacement surgeries completed in FY 2017-18; 322 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 431 days 83 days shorter than the previous fiscal.
- In 2017/18, hospitals in the South West LHIN had the **longest** wait time for knee replacement surgery.
- The wait list queue at the start of FY 2017-18 was 2,359 patients; 394 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison: Wait 2 90<sup>th</sup> Percentile Wait Time for Knee Replacement (Days), Completed Cases and Wait List Queue Trends



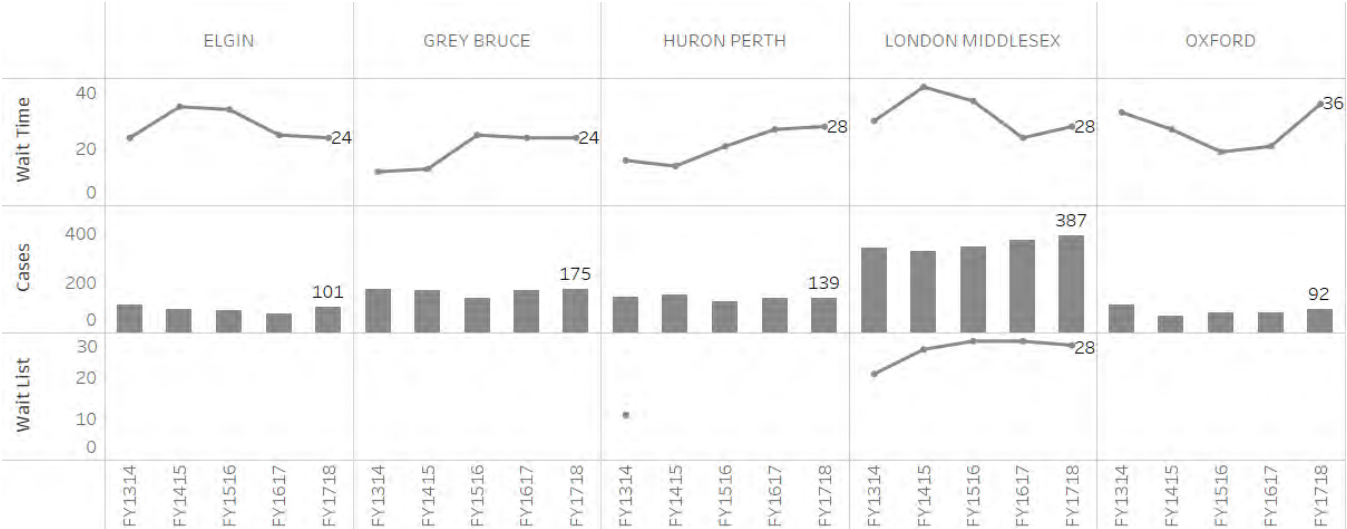
- South West LHIN sub-region (of Patient Residence) variation in FY 2017-18: 268 days to 521 days

# Paediatric CT

- There were 1,105 paediatric CT scans completed in FY 2017-18; 92 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 27 days, 2 days longer than the previous fiscal.
- In 2017/18, hospitals in the South West LHIN tied for 6<sup>th</sup> shortest wait time for paediatric CT scans.
- The wait list queue at the start of FY 2017-18 was 75 patients, 3 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Paediatric CT (Days), Completed Cases and Wait List Queue Trends



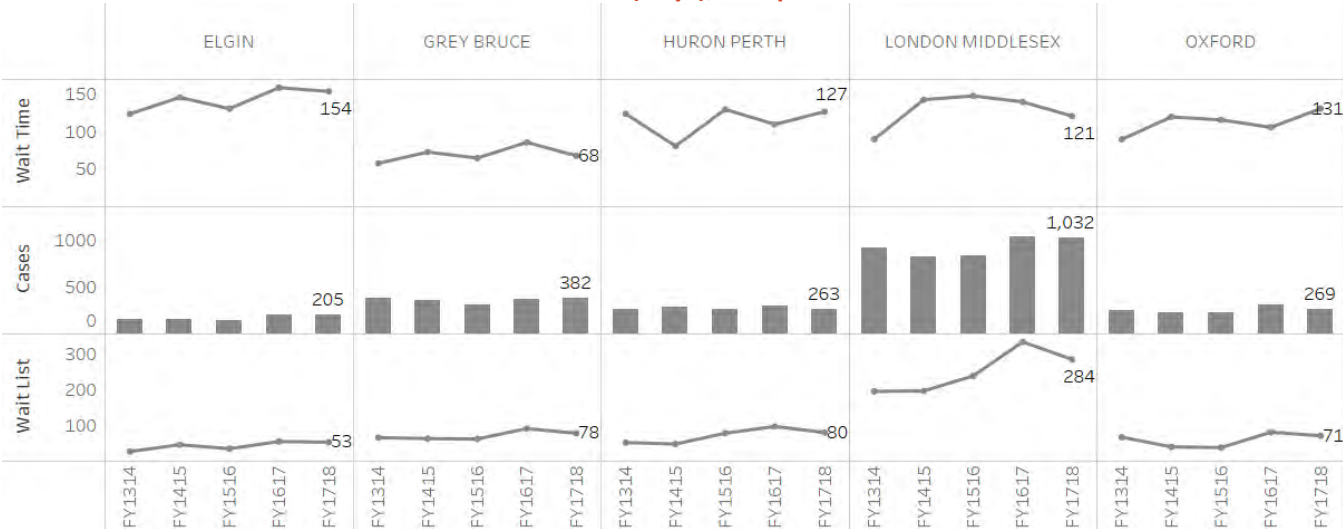
- South West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 24 days to 36 days.

### Paediatric MRI

- There were 2,756 paediatric MRI scans completed in FY 2017-18; 24 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 123 days, 11 days shorter than the previous fiscal.
- In 2017/18, hospitals in the South West LHIN had the 3<sup>rd</sup> longest wait time for paediatric CT scans [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 771 patients; 60 fewer queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90<sup>th</sup> Percentile Wait Time for Paediatric MRI (Days), Completed Cases and Wait List Queue Trends



- South West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 68 days to 154 days.
- **Elgin** sub-region wait time of 154 days was the **longest** across the province for this period.



## Oncology and Dialysis

### Ambulatory Oncology Utilization

- In 2016/17, there were 102,051 ambulatory oncology visits to hospital(s) in South West LHIN.
- Since 2014/15, visits in Ontario have increased by 9%. The number of visits to South West LHIN hospitals increased by 11% and visits for South West LHIN residents increased by 12%.
- In 2016/17, ambulatory oncology visits per 1,000 population for residents of South West LHIN is 90.0 (Ontario - 75.7). The rate is one of the highest in the province and across age groups 18-44, 45-64, and 65-79 years. Within South West LHIN, residents in:
  - Age group 0-17 years from **Oxford** (9.9) has the 3<sup>rd</sup> highest visit rate in Ontario (5.0).
  - Age group 18-44 years from **Oxford** (21.9) has the 4<sup>th</sup> highest visit rate in Ontario (15.9).
  - Age group 45-64 years from sub-regions **Elgin** (135.8) and **Oxford** (139.0) have the 7<sup>th</sup> and 5<sup>th</sup> highest visit rates in Ontario (106.7).
  - Age group 65-79 years from **Elgin** (349.4) and **Oxford** (339.8) has the 3<sup>rd</sup> and 5<sup>th</sup> highest visit rates in Ontario (255.4).
  - Age group 80+ years from **Elgin** (294.4) has the 3<sup>rd</sup> highest visit rate in Ontario (191.6).
- 8% of ambulatory oncology visits by South West LHIN residents were to hospitals outside of South West LHIN.
- 21% of ambulatory oncology visits to South West LHIN hospitals were by non-South West LHIN residents.

Ambulatory Oncology	South West	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory oncology visits	102,051	1,059,358	4 <sup>th</sup> highest	Increase	
% Inflow oncology visits	20.7%				
<b>LHIN of patient</b>					
Ambulatory oncology visits	88,301	1,057,888		Increase	9,503 -40,149
% Outflow oncology visits	8.4%				
Visits per 1,000 population	90.0	75.7	2 <sup>nd</sup> highest	Increase	84.4 -104.2
Visit rate/1,000 population age 0-17 years	4.6	5.0			1.0 -9.9
Visit rate/1,000 population age 18-44 years	18.0	15.9	2 <sup>nd</sup> highest		14.7 -21.9
Visit rate/1,000 population age 45-64 years	123.2	106.7	2 <sup>nd</sup> highest		112.9 -139.0
Visit rate/1,000 population age 65-79 years	286.1	255.4			248.8 -349.4
Visit rate/1,000 population age 80+ years	197.2	191.6			161.2 -294.4

Ambulatory Oncology - Sub-Region	South West	Grey Bruce	Huron Perth	London Middlesex	Elgin	Oxford
<b>LHIN of hospital</b>						
Ambulatory oncology visits	102,051					
% Inflow oncology visits	20.7%					
<b>LHIN of patient</b>						
Ambulatory oncology visits~	88,301	14,393	11,714	40,149	9,503	11,577
% Outflow oncology visits	8.4%	33.3%	7.6%	0.4%	1.1%	7.9%
Visits per 1,000 population	90.0	95.9	84.9	84.4	104.2	103.1
Visit rate/1,000 population age 0-17 years	4.6	1.0	4.2	4.9	3.0	9.9
Visit rate/1,000 population age 18-44 years	18.0	15.2	14.7	19.1	18.2	21.9
Visit rate/1,000 population age 45-64 years	123.2	112.9	120.4	122.0	135.8	139.0
Visit rate/1,000 population age 65-79 years	286.1	271.5	248.8	282.9	349.4	339.8
Visit rate/1,000 population age 80+ years	197.2	161.2	164.9	210.2	294.4	194.3

### Ambulatory Dialysis Utilization

- In 2016/17, there were 72,921 ambulatory dialysis visits to hospital(s) in South West LHIN. (Ontario - 1,269,794).
- Since 2014/15, visits in Ontario have increased by 3%. The number of visits to South West LHIN hospitals decreased by 5% and visits for South West LHIN residents decreased by 2%.
- In 2016/17, the rate of ambulatory dialysis visits per 1,000 population for residents of South West LHIN is 71.7 (Ontario - 90.4). The rate is one of the lowest rates (12<sup>th</sup>) in the province and across age groups 45-64 (13<sup>th</sup>), 65 – 79 (14<sup>th</sup>), and 80+ years (14<sup>th</sup>). Within South West LHIN, residents in:
  - Age group 18-44 years from **Oxford** (38.9) has the 8<sup>th</sup> highest visit rate in Ontario (21.8).
  - Age group 45-64 years from **Huron Perth** (48.4) has one of the lowest visit rates in Ontario (105.3).
  - Age group 65-79 years from sub-regions **Grey Bruce** (115.5) and **Huron Perth** (126.9) has one of the lowest visit rates in Ontario (285.3).
  - Age group 80+ years from **Grey Bruce** (123.6) has one of the lowest visit rates in Ontario (426.7).
- 3% of ambulatory dialysis visits by South West LHIN residents were to hospitals outside of South West LHIN.
- 6% of ambulatory dialysis visits to South West LHIN hospitals were by non-South West LHIN residents.

*Note: Ambulatory dialysis visit volumes for residents in age group 0-17 are low to none across all sub-regions. Caution should be used when interpreting visit rates in this age group.*

Ambulatory Dialysis	South West	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory dialysis visits	72,921	1,269,794		Decrease	
% Inflow dialysis visits	6.0%				
<b>LHIN of patient</b>					
Ambulatory dialysis visits	70,349	1,264,676		Stable	6,297 -41,464
% Outflow dialysis visits	2.5%				
Visits per 1,000 population	71.7	90.4		Stable	45.6 -87.1
Visit rate/1,000 population age 0-17 years	0.8	1.2			0.0 -1.6
Visit rate/1,000 population age 18-44 years	20.3	21.8			16.2 -38.9
Visit rate/1,000 population age 45-64 years	79.3	105.3	2 <sup>nd</sup> lowest		48.4 -100.5
Visit rate/1,000 population age 65-79 years	208.0	285.3	Lowest		115.5 -297.4
Visit rate/1,000 population age 80+ years	291.4	426.7	Lowest		123.6 -384.7

Ambulatory Dialysis - Sub-Region	South West	Grey Bruce	Huron Perth	London Middlesex	Elgin	Oxford
<b>LHIN of hospital</b>						
Ambulatory dialysis visits	72,921					
% Inflow dialysis visits	6.0%					
<b>LHIN of patient</b>						
Ambulatory dialysis visits~	70,349	7,326	6,297	41,464	6,702	8,172
% Outflow dialysis visits	2.5%	7.8%	13.3%	0.2%	0.0%	3.5%
Visits per 1,000 population	71.7	48.8	45.6	87.1	73.5	72.8
Visit rate/1,000 population age 0-17 years	0.8	0.0	0.4	1.6	0.0	0.0
Visit rate/1,000 population age 18-44 years	20.3	16.4	16.2	19.2	18.0	38.9
Visit rate/1,000 population age 45-64 years	79.3	54.6	48.4	99.6	100.5	62.7
Visit rate/1,000 population age 65-79 years	208.0	115.5	126.9	297.4	183.8	180.7
Visit rate/1,000 population age 80+ years	291.4	123.6	152.3	384.7	357.0	360.6

\*Ranking: Top or bottom 4 ranking in the province, compared to other LHINs.

^ Trend: "Increase/decrease" when there is a change more than 1%, otherwise, "stable"

~ There are some records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables with the LHIN name but as SR unassigned.

## Home Care

### Home Care Patient Referrals

- In 2017/18, there were 59,016 active home care patient referrals in the South West LHIN.
  - The **London Middlesex** sub-region had the largest proportion of South West LHIN patient referrals with 25,770. This represents the third highest number of active patient referrals in Ontario.

### Active Patient Referrals 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
Elgin	4,814	5,097	5,229	
Grey Bruce	9,431	9,774	9,871	
Huron Perth	8,411	8,643	8,906	
London-Middlesex	23,458	24,829	25,770	3 <sup>rd</sup> highest
Oxford	6,266	6,599	6,861	
Out of LHIN Region	1,301	1,329	1,451	
Unknown Region	1,826	1,570	928	
SW Total	55,507	57,841	59,016	

\*Rank based on 2017/18 active patient referrals

### Home Care Referral Rate

- In 2017/18, South West LHIN's utilization rate was higher than Ontario's (59.5 compared to 48.2).
  - Within the LHIN, the utilization rate ranged from 54.2 referrals per 1,000 in London-Middlesex to 65.8 in **Grey Bruce**.

### Referrals (per 1,000 population) 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
Elgin	53.1	55.9	57.4	
Grey Bruce	63.3	65.1	65.8	
Huron Perth	61.5	62.7	64.6	
London-Middlesex	50.0	52.2	54.2	
Oxford	56.0	58.8	61.1	
SW Total	57.1	58.9	59.5	

\*Rank based on 2017/18 utilization rates

### Home Care Services

- In South West LHIN, there were 1,052,278 home care visits and 2,075,828 service hours in 2017/18.
- The rate of home care visits was 1,060.1 per 1,000 population and the rate of service hours was 2,091.3 per 1,000 population.
- South West had the 2<sup>nd</sup> highest nursing visits per 1,000 population, lowest speech language pathology visits per 1,000 population, and highest nursing shift visits per 1,000 population.
- The following sub-regions had among the eight highest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - Grey Bruce had the 7<sup>th</sup> highest rate of nursing visits.
  - Grey Bruce had the 2<sup>nd</sup> highest rate of nutrition visits.
  - London Middlesex had the 4<sup>th</sup> highest rate of nursing shift hours.
  - Elgin had the **highest** rate of nursing shift hours.
  - Oxford had the 2<sup>nd</sup> highest rate of nursing shift hours.
  - Oxford had the 8<sup>th</sup> highest rate of total visits rate.
  - Oxford had the 3<sup>rd</sup> highest rate of nursing visits.
  - Oxford had the 5<sup>th</sup> highest rate of social work visits.
- The following sub-regions had among the eight lowest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - London Middlesex had the 4<sup>th</sup> lowest rate of speech language therapy visits.
  - Oxford had the 2<sup>nd</sup> lowest rate of speech language therapy visits.
- Between 2014/15 and 2017/18 there was an increase in total visits of 19.4% and a decrease in total hours of 3.6% in South West LHIN. During this period nursing visits increased by 30.1%, physiotherapy visits decreased by 13.1%, speech language pathology visits decreased by 35.3% and nursing shift hours decreased by 25.7%.
- Between 2014/15 and 2017/18 nursing visits rate increased by 26.7%, physiotherapy visit rate decreased by 15.3%, speech language pathology visit rate decreased by 36.9%, and nursing shift hours rate decreased by 27.6%.

## Summary of Home Care Service by Type, South West LHIN, 2017/18

	South West LHIN Residents	Ontario Residents*	Comments	LHIN % Change 2014/15 to 2017/18	Range across SW sub-regions**
<b>Service Visits</b>					
<b>All Visits†</b>	1,052,278	11,528,751		19.4%	98,805-483,513
Nursing Visit	739,312	7,539,458		30.1%	68,508-342,346
Physiotherapy	53,617	738,685		-13.1%	5,010-25,310
Occupational Therapy	48,678	615,215		-4.0%	4,340-23,549
Social Work	7,300	56,973		-15.2%	371-3,316
Nutrition and Dietetic	5,266	47,949	2 <sup>nd</sup> highest	-21.2%	274-2,632
Speech Language Pathology	11,518	273,735	2 <sup>nd</sup> lowest	-35.3%	919-4,514
Case Management	174,426	2,211,107		8.0%	17,710-76,795
<b>Service Hours</b>					
<b>All Hours</b>	2,075,828	34,396,919		-3.6%	232,578-1,096,146
Nursing Shift	235,157	2,366,020		-25.7%	9,812-139,758
Personal Support Work and Homemaking	1,840,671	31,319,568		0.2%	198,395-956,387
Respite		711,331		n/a	-
<b>Service Visits per 1,000 population</b>					
<b>All Visits per 1,000 population †</b>	1,060.1	810.2		16.3%	996.2-1,254.5
Nursing Visit	744.8	529.8	2 <sup>nd</sup> highest	26.7%	681.5-935.4
Physiotherapy	54.0	51.9		-15.3%	52.7-59.0
Occupational Therapy	49.0	43.2		-6.5%	47.6-53.4
Social Work	7.4	4.0		-17.3%	3.5-14.5
Nutrition and Dietetic	5.3	3.4		-23.2%	2.0-11.0
Speech Language Pathology	11.6	19.2	<b>Lowest</b>	-36.9%	8.2-16.6
Case Management	175.7	155.4		5.3%	161.4-199.5
<b>Service Hours per 1,000 population</b>					
<b>All Hours</b>	2,091.3	2,417.3		-6.1%	1,597.3-2,557.7
Nursing Shift	236.9	166.3	<b>Highest</b>	-27.6%	65.4-321.5
Personal Support Work and Homemaking	1,854.3	2,201.0		-2.4%	1,532.0-2,236.2
Respite	0.0	50.0	<b>Lowest</b>	n/a	-

\*Not all LHINs offer the same services or report case management services in the same manner.

\*\*Service rates per 1,000 population are calculated using 2017/18 service levels divided by 2016 population estimates from the Ministry of Finance. Typically 2017 population estimates would be used but they were not available at the sub-region level at time of calculation.

†Includes visits for respiratory, psychology, and 'other' service types (not shown), which are not consistently reported/available in all LHINs.

n/a – not applicable due to significant changes in funding and recording

## Palliative Care

### Services Received at Home by Palliative Patients FY 2016/2017

	Provincial Ranking	LHIN	Range Across SW sub-regions
Percent of patients who received palliative home visits(home servicers or physician) in the last 90 days of life	10	38%	36% to 42%
Percent of patients who received palliative home servicers in the last 90 days of life	11	28%	28% to 30%
Percent of patients who had physician home visits in the last 90 days of life	8	30%	23% to 35%
Percent of patients who receive palliative home services who died in hospital	12	31%	28% to 36%
Percent of palliative care patients discharged home from hospital with the discharge status "Home with Support"	8	86%	76% to 93%
mean days spent at home/residence in last 6 months of life	11	163 days	161 days to 165 days

*†Ranking in the province, compared to other LHINs.*

### Interpretation

- In 2016/2017, the percent of patients in South West LHIN who received palliative home visits in the last 90 days of life is slightly greater than the provincial value of 36%.
  - Within the South West LHIN, the **Elgin** sub-region reported the lowest percentage within the LHIN at 31% and **Grey Bruce** sub-region had the highest percentage at 42%.
- In 2016/2017, the percent of patients in South West LHIN who received palliative home servicer visits in the last 90 days of life was slightly higher than the province (28% vs 25%, respectively).
  - Within the South West LHIN, all sub-regions reported that 27% or more of patients received home servicer visits in the last 90 days of life.
- In 2016/2017, the percent of patients in South West LHIN who received physician visits in the last 90 days of life (30%) was slightly higher than the province (28%).
  - Two sub-regions reported a lower percentage of patients who received physician home visits than the provincial value of 28%: **Huron Perth** (25%) and **Elgin** (23%), while **Grey Bruce** had the highest percentage across the LHIN at 35%.
- Across Ontario, South West LHIN reported the third highest percentage of patients who received palliative home services who died in hospital (31%), which is notably higher than the provincial percentage of 25%.
  - There is some variation of percentages of patients who received palliative care who died in hospital across South West sub-regions, from 28% in **London Middlesex** to 24% in **Elgin**.
- Across LHINs, South West is comparable to the provincial percentage percent of palliative care patients discharged home with "Home with Supports" status, with a mean of 86% in 2016/2017 compared to Ontario's 85%.

- Within South West, the sub-regions vary widely from 76% in **Elgin** to 93% in **Oxford**.
- South West had the 4<sup>th</sup> highest mean number of days at home among palliative patients in the last 6 months across all LHINs at 163 days, compared to the provincial number at 160 days.
  - South West sub-regions are close in mean number of days that palliative patients spend at home in their last 6 months, ranging from 161 days in **Elgin** to 165 days in **Grey Bruce** and **Huron Perth**.

#### **Palliative Hospital System Measures, South West (FY 2016/17)**

	Provincial Ranking	LHIN	Range Across the sub-regions
Percent of patients who had one or more unplanned ED visits in the last 30 days of life	4	53%	50% - 56%
Percent of patients who had two or more unplanned ED visits in the last 30 days of life	10	15%	14% - 17%
Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days	6	20%	17% - 26%
Percent of people who die in hospital (all hospital settings and acute only)	5	48%	46% - 52%
Percent of people who die in acute hospital	7	43%	36% - 48%
Percent of patients who had two or more acute inpatient admissions in the last 30 days of life	12	6%	5% - 9%



### LHIN Comparison

- For percent of people who died in hospital (all hospital settings and acute only), the South West LHIN was **significantly lower** than the province.
  - For percent of patients who had one or more unplanned ED visits in the last 30 days of life, **Huron Perth** and **London Middlesex** sub-regions were **significantly lower** than the province.
  - For percent of patients who had two or more unplanned ED visits in the last 30 days of life, **London Middlesex** sub-region was **significantly lower** than the province. **Grey Bruce** and **Elgin** counties were **significantly higher** than the province.
  - For percent of people who died in hospital (all hospital settings and acute only), the following sub-regions were **significantly lower** than the province: **Grey Bruce**, **Huron Perth**, and **Oxford**.
  - For percent of people who died in acute hospital, **Huron Perth** sub-region was **significantly lower** than the province.
  - For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, **Elgin** sub-region was **significantly higher** than the province.

### Change Over Time

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of -1% was observed across the South West LHIN ranking 11<sup>th</sup> provincially.
  - Across sub-regions, **Oxford** (0%) and **Huron Perth** (-2%) were observed highest and lowest, respectively.
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of 0% was observed across the South West LHIN ranking 9<sup>th</sup> provincially.
  - Across sub-regions, **Oxford** (5%) and **Elgin** (-2%) were observed highest and lowest, respectively.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, a mean annual growth rate of -1% was observed across the South West LHIN ranking 10<sup>th</sup> provincially.
  - Across sub-regions, **Elgin** (8%) and **Huron Perth** (-8%) were observed highest and lowest, respectively.
- For percent of people who die in hospital (all hospital settings and acute only), a mean annual growth rate of -3% was observed across the South West LHIN ranking 12<sup>th</sup> provincially.
  - Across sub-regions, **Oxford** (0%) and **London Middlesex** (-4%) were observed highest and lowest, respectively.
- For percent of people who die in acute hospital, a mean annual growth rate of -3% was observed across the South West LHIN ranking 11<sup>th</sup> provincially.
  - Across sub-regions, **Oxford** (2%) and **Huron Perth** (-5%) were observed highest and lowest, respectively.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, a mean annual growth rate of 1% was observed across the South West LHIN ranking 4<sup>th</sup> provincially.
  - Across sub-regions, **Oxford** (9%) and **Grey Bruce** (-7%) were observed highest and lowest, respectively.

## Emergency Department

### Emergency Department Utilization

- In 2016/17, there were 634,689 ED visits to South West LHIN hospitals, an increase of 7.4% from 2013/14. In the same time-period, the number of ED visits in the province increased by 6.5%.
- South West's crude ED visit rate of 603.1 ED visits per 1,000 population was 4<sup>th</sup> highest in the province, higher than the provincial rate (442.2). This represented a 4.9% increase in crude visit rate in the LHIN from 2013/14 during which time the provincial crude visit rate climbed by 3.0%.
- Age adjusted ED visit rates per 1,000 population were highest for seniors 80+ at 1,051 visits per 1,000 population, following by seniors aged 65-79 (637 visits / 1,000 population), children aged 0-17 (626 visits per 1,000 population), adults aged 18-44 (592 visits per 1,000 population), while adults aged 45-64 years had the lowest usage rate in LHIN at 506 visits per 1,000 population, or less than 50% of the highest user age group.
  - **London Middlesex** residents had the lowest ED visit rate of South West's 5 sub-regions, at 448 visits per 1000 population.
  - **Grey Bruce** sub-region had the highest crude ED visit rate at 932 visits per 1,000 population.
- Overall, all 5 of South West sub-regions had crude ED visit rates over the provincial value.
- Between 2013/14 and 2016/17 the number of South West LHIN residents visiting the ED with lower acuity levels (CTAS IV and V) declined 0.9% to 260,414 visits. During this same time-period, visits by Ontario residents with CTAS IV and V declined 2.2%.
- Between 2013/14 and 2016/17 the number of visits with CTAS III increased by 9.1% and CTAS I & II increased by 27.5%, while provincially these numbers increased by 9.4% and 15.8% respectively.
- Overall, South West LHIN ranked 3<sup>rd</sup> highest in the province in proportion of ED visits by residents that were lower acuity (44.0% for South West, and 33.5% for the province).
- 4 out of 5 of South West's sub-regions had a higher proportion of ED visits with lower acuity (CTAS IV and V) than the province.
  - **London Middlesex** had the lowest proportion of ED visits with lower acuity of the LHIN's 5 sub-regions, at 31.6%, while **Grey Bruce** had the highest at 55.8%.
  - 2 of South West's sub regions, **Grey Bruce** and Huron had among the highest proportion of lower acuity visits by residents of all sub regions in province, ranking 4<sup>th</sup> and 7<sup>th</sup> respectively.
- The most common causes for ED visits for by South West LHIN residents were diseases or disorders of the ear, nose or throat, diseases or disorders of the skin & breast and of the digestive system, and accounted for 11.1%, 9.1%, and 8.9% of ED visits by South West LHIN residents respectively.
- Follow-up examinations and other non-emergent conditions ranked 4<sup>th</sup> as a cause of ED visits and accounted for 6.4% of ED visits by South West LHIN residents.
- 11.7% of the patients who visited ED in South West LHIN hospitals arrived via ambulance in FY16/17, as compared to 15.6% for the province.
- South West ranked 13<sup>th</sup> in the province for proportion of visits arriving by ambulance.
  - The proportion of ED visits that arrived by ambulance ranged from a low of 7.0% in **Grey Bruce** sub-region to a high of 17.7% in **London Middlesex**.
- 8.1% of the patients who visited ED in South West LHIN hospitals were admitted in FY16/17, as compared to 9.8% for the province.
  - The proportion of ED visits that resulted in a patient being admitted to hospital ranged from a low of 5.1% in **Grey Bruce** sub-region to a high of 10.3% in **London Middlesex**.
- 3.8% of the patients who visited ED in South West LHIN hospitals left without completing treatment in FY16/17, as compared to 3.9% for the province.

- 10.0% of ED visits to South West LHIN hospitals were by patients who did not reside in South West LHIN (inflow). This compares to 3.5% of ED visits by South West LHIN residents that were accessed in other LHINs (outflow).

### Top 10 Reasons for Emergency Department Visits by LHIN, 2016/17

Leading CACS groups, by LHIN of patient	South West	
	#	% of total visits
(B112) Disease or Disorder Ear, Nose or Throat	65,584	11.1%
(B132) Disease or Disorder Skin & Breast	53,747	9.1%
(B128) Disease or Disorder Digestive System	52,547	8.9%
(B187) Follow-up Examination and Other Non Emergent Condition	37,748	6.4%
(B136) Disease or Disorder Musculoskeletal and Connective Tissue	35,433	6.0%
(B116) Disease or Disorder Respiratory System	34,553	5.8%
(B180) Contusion, Dislocation, Nerve & Other Soft Tissue Injury	32,925	5.6%
(B122) Other Disease or Disorder Cardiac System	26,595	4.5%
(B005) Other Condition with Acute Admission/Transfer	24,745	4.2%
(B188) Open Wound and Vascular Injury	24,293	4.1%

Measure—LHIN of Hospital	South West		Ontario	
	#	LHIN % change 2013/14-2016/17	#	Ontario % change 2013/14-2016/17
Visits	634,689	7.4%	6,312,121	6.5%
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	105,000	28.4%	1,284,741	15.9%
III (urgent)	244,131	9.4%	2,876,687	9.6%
IV & V (less urgent/non urgent)	283,553	-0.6%	2,128,914	-2.0%
<b>% visits by CTAS level†</b>				
I & II (resuscitation/emergent)	16.5%		20.4%	
III (urgent)	38.5%		45.6%	
IV & V (less urgent/non urgent)	44.7%		33.7%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	11.7%		15.6%	
% of visits that were admitted	8.1%		9.8%	
% of visits that left without completing treatment	3.8%		3.9%	
<b>% Inflow visits</b>	10.0%			

Measure—LHIN of Patient	South West		Ontario	
	#	LHIN % change 2013/14- 2016/17	#	Ontario % change 2013/14- 2016/17
Visits	591,820	7.1%	6,183,151	6.4%
ED visit rate/1,000 population	603.1	4.9%	442.2	3.0%
<b>Age-specific ED visit rates per 1,000 population</b>				
ED visit rate, age 0-17 years	626		429	
ED visit rate, age 18-44 years	592		411	
ED visit rate, age 45-64 years	506		388	
ED visit rate, age 65-79 years	637		516	
ED visit rate, age 80+ years	1,051		913	
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	100,086	27.5%	1,265,237	15.8%
III (urgent)	229,486	9.1%	2,825,385	9.4%
IV & V (less urgent/non urgent)	260,414	-0.9%	2,070,962	-2.2%
<b>% visits by CTAS level</b>				
I & II (resuscitation/emergent)	16.9%		20.5%	
III (urgent)	38.8%		45.7%	
IV & V (less urgent/non urgent)	44.0%		33.5%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	12.0%		15.8%	
% of visits that were admitted	8.3%		9.9%	
% of visits that left without completing treatment	3.8%		3.8%	
% Outflow visits	3.5%			

# ED Visit Utilization Summary, by sub-region of Patient Residence, 2016/17 South West LHIN

Sub-Region of Patient Residence	Grey Bruce	Huron Perth	London Middlesex	Elgin	Oxford	LHIN	Ontario
Visits	139,971	92,665	213,163	60,356	78,832	591,820	6,183,151
ED visit rate/1,000 population	932	672	448	662	702	603.1	442
% Outflow to other LHINs	3.3%	3.4%	2.7%	1.9%	4.8%	3.5%	
<b>Age-specific ED visit rates per 1,000 population</b>							
ED visit rate, age 0-17 years	1007	700	467	617	715	626	429
ED visit rate, age 18-44 years	980	705	421	718	749	592	411
ED visit rate, age 45-64 years	775	543	383	563	555	506	388
ED visit rate, age 65-79 years	906	670	485	671	699	637	516
ED visit rate, age 80+ years	1343	1051	897	1135	1158	1,051	913
<b># visits by CTAS level</b>							
# CTAS Level I & II visits	14057	11659	49834	11791	11642	100,086	12715
# CTAS Level III visits	47403	31812	94863	23167	29649	229,486	20741
# CTAS Level IV & V visits	78080	48968	67365	25355	37509	260,414	13353
<b>% visits by CTAS level</b>							
I & II (resuscitation/emergent)	10.0%	12.6%	23.4%	19.5%	14.8%	16.9%	20.5%
III (urgent)	33.9%	34.3%	44.5%	38.4%	37.6%	38.8%	45.7%
IV & V (less urgent/non urgent)	55.8%	52.8%	31.6%	42.0%	47.6%	44.0%	33.5%
<b>Other visit characteristics</b>							
% of visits that arrived by ambulance	7.0%	8.5%	17.7%	11.3%	10.5%	12.0%	15.8%
% of visits that were admitted	5.7%	7.3%	10.3%	9.2%	7.7%	8.3%	9.9%
% of visits that left without completing treatment	2.4%	2.6%	5.5%	3.3%	3.6%	3.8%	3.8%

## Emergency Department Performance

- Since fiscal 2013/14, 90<sup>th</sup> percentile ambulance offload times had nearly doubled and was 49 minutes in fiscal year 2017/18.
- ED volumes for non-admitted high acuity patients increased since fiscal year 2013/14 to 253,156 in fiscal year 2017/18
- Overall ED volumes had also increased from fiscal year 2013/14 (553,284) to 2017/18 (594,811).
- South West LHIN had the 2<sup>nd</sup> shortest 90<sup>th</sup> percentile ED LOS of the 14 LHINs, at 7 hours in fiscal year 2017/18, and the 3<sup>rd</sup> lowest 90<sup>th</sup> percentile ED LOS for admitted patients, at 23 hours.
- South West LHIN ranked 2<sup>nd</sup> highest of 14 LHINs for the following measures in fiscal year 2017/18: Time to Disposition (All) - 90th Percentile (6 hours), Time to Disposition for Non-Admitted High Acuity - 90th Percentile (6 hours), and Time to Inpatient Bed - 90th Percentile (16 hours).
- All measures for ED LOS and time to disposition are below the provincial value rate in fiscal year 2017/18.

## Emergency department visits, South West LHIN

Measure	Fiscal Year					Range across sites, FY 17/18
	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	
All emergency department visits						
ED Volumes (All)	533,284	547,020	562,312	575,400	594,811	4,958 - 108,169
Ambulance Offload Time - 90th Percentile (mins)	25	36	38	33	49	7 - 82
Time to PIA - 90th percentile	3	3	3	3	3	1 - 4
% with Time to PIA <= 2 Hours	81%	81%	81%	81%	78%	67% - 98%
Consult Request to Arrival - 90th Percentile	3	3	3	3	3	0 - 3
% of Consults with Consult Request to Arrival <= 2 Hrs	82%	83%	85%	85%	85%	81% - 100%
Time to Disposition (All) - 90th Percentile	6	6	6	5	6	3 - 9
ED LOS - 90th Percentile	6	6	6	6	7	3 - 12
Non-admitted low acuity ED visits						
ED Volumes - Non-Admitted Low Acuity	244,347	242,970	241,101	245,539	253,156	3,209 - 28,144
% Within Target of 4 Hrs - Non-Admitted Low Acuity	92%	93%	93%	93%	91%	72% - 99%
Time to Disposition for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	4	2 - 6
ED LOS for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	4	2 - 6
Non-admitted high acuity ED visits						
ED Volumes - Non-Admitted High Acuity	243,207	257,609	272,467	280,029	289,369	1,115 - 63,595
% Within Target of 8 Hrs - Non-Admitted High Acuity	95%	95%	96%	96%	95%	89% - 100%
Time to Disposition for Non-Admitted High Acuity - 90th Percentile	6	6	6	6	6	4 - 8
ED LOS for Non-Admitted High Acuity - 90th Percentile	6	6	6	6	7	4 - 8
Admitted ED visits						
ED Volumes - Admitted	44,891	45,287	47,030	48,015	49,602	79 - 15,717
Admission Rate - CTAS 1	63%	62%	63%	61%	61%	0% - 73%
Admission Rate - CTAS 2	27%	26%	26%	25%	24%	2% - 29%
Admission Rate - CTAS 3	9%	9%	8%	8%	8%	0% - 12%
Admission Rate - CTAS 4	1%	1%	1%	1%	1%	0% - 2%
Admission Rate - CTAS 5	0%	0%	0%	0%	0%	0% - 1%
Time to Disposition for Admitted - 90th Percentile	10	10	9	9	10	5 - 17
ED LOS for Admitted - 90th Percentile	24	25	21	20	23	7 - 38
% Within Target of 8 Hrs - Admitted	56%	56%	61%	62%	56%	30% - 95%
Time to Inpatient Bed - 90th Percentile	17	18	14	12	16	1 - 29

## Acute Care

### Acute Care Utilization by Residents of the South West LHIN

#### Acute Separations

- In 2016/17, there were 83,841 acute separations (discharges), 430,957 acute days, and 484,166 total days (including acute and alternate level of care days) for South West LHIN residents.
- The acute separation rate for South West LHIN residents was 85 separations per 1,000 residents in 2016/17 but varied substantially by sub-region of patient residence.
  - Within the South West LHIN, rates were the lowest for residents of the **London Middlesex** sub-region and highest for residents of **Grey Bruce**.
  - Across the province, residents of **London Middlesex** had the 2<sup>nd</sup> highest volume of separations by LHIN of hospital (33,789), and the 2<sup>nd</sup> highest volume of separations by sub-region of patient (34,788).
- From 2013/14 to 2016/17, the overall acute separation rate for South West LHIN residents increased by 2.8%.

#### Acute Days

- The rate of acute days for South West LHIN residents was 439 acute days per 1,000 residents in 2016/17.
  - Rates were the lowest for residents of the **Huron Perth** sub-region (409) and highest for **Grey Bruce** (526) in 2016/17.

#### Length of Stay

- The mean total length of stay (including acute days and days waiting for an alternate level of care) for South West LHIN residents was 5.8 days, while the mean acute length of stay was 5.2 days in 2016/17.
  - Residents in the South West LHIN sub-regions of **Huron Perth** and **Elgin** were ranked in the lowest 8 among Ontario sub-regions in terms of mean total and acute lengths of stay – with values well below the Ontario value.

#### HIG Weight

- The Ontario HBAM Inpatient Grouper (HIG) (similar to CMG+) aggregates acute care separations with similar resource use and clinical characteristics based on most responsible diagnosis and/or principal intervention. The HIG weight is a relative cost value that reflects the resources consumed during each acute care stay. The mean HIG weight for South West LHIN residents declined slightly from 1.47 in 2014/15 to 1.46 in 2016/17.
- The top 3 HIGs accounting for the highest proportion of acute care days for South West LHIN residents in 2016/17 were: 196-heart failure without coronary angiogram, 138-viral/unspecified pneumonia, and 810-palliative care.



## Acute Care Hospital Utilization (Excluding ALC) LHIN of Patient, South West LHIN, 2016/17

	South West LHIN Residents	Ontario Residents*	Rank among LHINs	Range across SW sub-regions
<b>Acute Care Measures</b>				
Total Population	981,331	13,982,984		91,173 – 475,881
Acute Separations	83,841	1,028,979		8,736 – 34,788
Acute Separation Rate per 1,000 Population	85	74	4 <sup>th</sup> Lowest	73 - 105
Acute Days	430,957	5,455,693		37,865 – 196,274
Acute Days Rate per 1,000 Population	439	390		409 – 526
Total Days	484,166	6,477,528		42,912 – 222,442
Total Days Rate per 1,000 Population	493	463		453 – 594
Mean Acute LOS	5.2	5.3		4.3 – 5.6
Mean Total LOS	5.8	6.3	3 <sup>rd</sup> Highest	4.9 – 6.4
Mean HIG Weight	1.46	1.55	3 <sup>rd</sup> Highest	—
<b>Leading HIGs (Acute Care Days)†</b>				
(196) Heart Failure w/o Coronary Angiogram	13,804	175,995		955 – 6,293
(138) Viral/Unspecified Pneumonia	11,126	119,810		1,042 – 4,395
(810) Palliative Care	11,759	110,197		396 – 7,232

\* Ontario residents exclude Out-of-province

† Leading HIGs include Out-of-province for Ontario Values

## Acute Care Utilization for South West LHIN Facilities

- There were 91,008 acute separations, 481,401 acute days, and 537,310 total days at South West LHIN hospitals in 2016/17.

### Separations

- Separations increased between 2013/14 and 2016/17 by 5.4%. During this same period, for Ontario hospitals overall, separations increased by 3.8%.

### Acute Days

- Acute days decreased by 1.2% between 2013/14 and 2016/17. Acute days increased by 2.2%, for all Ontario hospitals overall during this same period.
- Mean acute length of stay for 2016/17 at hospitals in the South West LHIN was 5.3 days. This is the same as the provincial result.

### Total Days

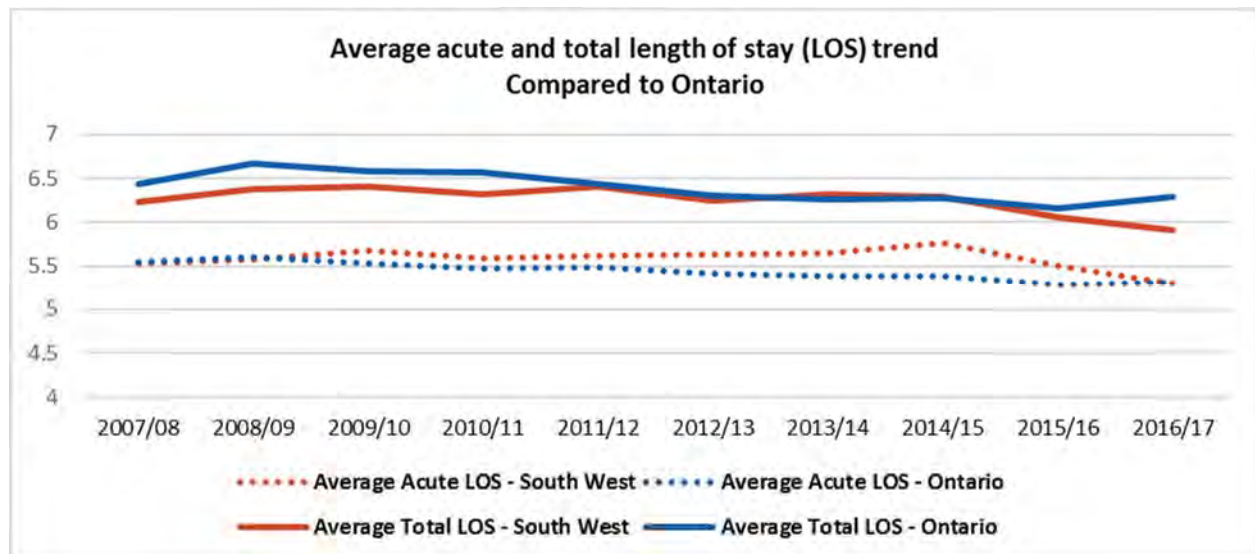
- Total days decreased by 1.5% between 2013/14 and 2016/17. Overall Ontario hospitals had an increase of 4.2% of total days during this period.
- Mean total length of stay for this LHIN was 5.9 days. Lower than the mean total length of stay for Ontario, which was 6.3 days.

### Ontario HBAM Group (HIG) Weight

- Mean HIG weight for South West LHIN hospitals in 2016/17 of 1.51 was lower than the provincial value of 1.55.

### Acute care hospital utilization, South West LHIN, 2016/17

Measure	South West LHIN	Ontario hospitals	Comments	LHIN % change 2013/14 - 2016/17	Range within LHINs
Acute separations	91,008	1,041,308		5.4%	26,295 - 159,315
Total days	537,310	6,542,800		-1.5%	193,259 - 1,050,391
Mean total LOS	5.9	6.3			5.0 - 7.3
Acute days	481,401	5,518,912		-1.2%	142,875 - 917,167
Mean acute LOS	5.3	5.3			4.5 - 5.8
Mean HIG weight	1.51	1.55			1.23 - 1.94



## Acute Care Inflow/Outflow

### Inflow

- 14.1% of hospital separations from South West LHIN hospitals were by non-South West LHIN residents.

### Outflow

- 6.8% of separations for South West LHIN residents were from hospitals outside South West LHIN.
  - By sub-region, **London Middlesex** had the 7<sup>th</sup> lowest outflow to other LHINs (2.9%) and **Elgin** had the 8<sup>th</sup> lowest (3.2%) in the province.

### Inflow - Outflow, South West LHIN, 2016/17

Measure	South West LHIN	Ontario Hospitals	Comments	Range across SW sub-regions
Acute separations, LHIN of hospital	91,008	1,041,322		8,453 – 33,789
Acute separations, LHIN of patient	83,841	1,041,322		8,736 – 34,788
% inflow	14.1%			NA
% outflow	6.8%			2.9% - 11.9%

## Post-Acute Care

### Inpatient Rehabilitation Utilization

#### Rehabilitation Admissions

- The number of total rehabilitation admissions at the LHIN hospitals, including both general admissions and special admissions, was 2,087 in FY 16/17, an increase of 1.3% from FY 13/14.
  - The number of general rehabilitation admissions was 1,815 in FY 16/17, an increase of 3.2% from FY 13/14.
  - The number of special rehabilitation admissions was 272 in FY 16/17, a decrease of 9.9% from FY 13/14.
- The number of total rehabilitation admissions of the LHIN residents, was 2,030 in FY 16/17, an increase of 2.0% from FY 13/14.

#### Active Cases and Discharges

- In FY 16/17, the number of active cases was 2,366 while the number of discharges was 2,097.

#### Inpatient Days

- The number of total inpatient days was 58,272 in FY 16/17.
- The mean length of stay at the LHIN hospitals was 27.8 days.
- By sub-region of patient residence:
  - **London Middlesex** residents had the longest length of stay at 31.4 days.
  - **Elgin** residents had the shortest length of stay at 21.3 days.

#### Admission Rate

- The number of admissions per 100,000 adults (age 18+) was 257.3 in FY 16/17, a decrease of 0.6% from FY 13/14.
  - Age group 18-44 years had the lowest admission rate, 29.1 per 100,000 population.
  - Age group 80+ years had the highest admission rate, 1,752 per 100,000 population.
- By sub-region of patient residence:
  - **Oxford** had the highest admission rate at 354.7.
  - **Grey Bruce** had the lowest admission rate at 185.0.

#### Active Case Rate

- The number of active cases per 1,000 population age 18+ was 297.4.

#### Discharge Rate

- The number of discharges per 1,000 population age 18+ was 259.9.

#### Leading Rehabilitation Group

- The 5 leading rehabilitation groups that contributed to the total admissions in FY 16/17 were:
  - Stroke accounted for 486 admissions or 23.9% of the total admissions.
  - Fracture of lower extremity accounted for 411 admissions or 20.2 % of the total admissions.
  - Other disabilities accounted for 339 admissions or 16.7% of the total admissions.
  - Replacement of lower extremity accounted for 146 admissions or 7.2% of the total admissions.
  - Other orthopaedic accounted for 128 admissions or 6.3% of the total admissions.

#### Outflow

- Hospitals outside the LHIN accounted for 4.9% of the total rehabilitation admissions of the LHIN residents

- By sub-region of patient residence:
  - Grey Bruce** residents had the highest rate of admission to hospitals outside the LHIN at 13.2%.
  - Elgin** residents had the lowest rate of admission to hospitals outside the LHIN at 1.8%.

### Inflow

- 7.5% of the rehabilitation admissions at the hospitals in the LHIN were residents from outside South West.

Rehab Admissions, Active Cases, Discharges and Days*	LHIN	Ontario	Ranking Among LHINs**	% Change 2013/14-2016/17	Range across sub-region
<b>LHIN of hospital</b>					
General admissions	1,815	28,691		3.2%	
Special admissions	272	4,444		-9.9%	
Total admissions	2,087	33,135		1.3%	
% Inflow inpatient rehab admissions	7.5%				
Active Cases	2,366	43,329			
Discharges	2,097	33,133			
Total Days (discharged cases only)	58,272	839,228			
Mean Length of Stay (discharged cases only)	27.8	25.3			
<b>LHIN of patient</b>					
Total population age 18+	788,890	11,287,810		2.5%	
Total admissions	2,030	33,016		2.0%	217-891
Admissions/100,000 population age 18+	257.3	292.5		-0.6%	185.0-354.7
Admissions/100,000 population age 18-44 years	29.1	30.4			16.3-51.3
Admissions/100,000 population age 45-64 years	135.8	150.9			91.2-199.4
Admissions/100,000 population age 65-79 years	541.9	689.3			373.9-765.0
Admissions/100,000 population age 80+ years	1,752.0	2,311.8			721.3-2,618.4
% Outflow inpatient rehabilitation admissions	4.9%				1.8%-13.2%
Active cases per 1,000 population age 18+	297.4	382.3	3 <sup>rd</sup> lowest		227.1-402.2
Discharges per 1,000 population age 18+	259.9	292.5			182.5-358.0
Mean Length of Stay (discharged cases only)	27.6	25.3			21.3-31.4

	Grey Bruce	Huron Perth	London Middlesex	Elgin	Oxford
<b>Measure</b>					
Rehab Admissions	228	368	891	217	315
Rehab Admission Rate per 100,000 Population	185.0	337.2	231.0	307.5	354.7
Rehab Active Cases	280	439	1,004	262	346
Rehab Active Case Rate per 100,000 Population	227.1	402.2	260.3	371.2	389.6
Rehab Discharges	225	371	898	225	318
Rehab Discharge Rate per 100,000 Population	182.5	339.9	232.9	318.8	358.0
Total Inpatient Days (discharged cases only)	6,135	8,214	28,156	4,793	8,916
mean LOS (discharged cases only)	27.3	22.1	31.4	21.3	28.0
<b>Age specific admission rates per 100,000 population</b>					
18-44 years	51.3	40.2	24.6	20.9	16.3
45-64 years	91.2	199.4	130.0	147.7	149.5
65-79 years	373.9	580.1	521.4	765.0	741.4
80+ years	721.3	2,068.4	1,822.1	2,114.4	2,618.4

Rehab Admissions, by Leading Rehabilitation Groups*	LHIN	% of Total Rehab Admission
<b>LHIN of Patient</b>		
01-Stroke	486	23.9%
10-Fracture of lower extremity	411	20.2%
18-Other disabilities	339	16.7%
11-Replacement of lower extremity	146	7.2%
12-Other orthopaedic	128	6.3%
03-Non-traumatic brain injury		
13-Cardiac		
06-Non-traumatic spinal cord injury		
07-Amputation		
02-Traumatic brain injury		
16-Major multiple trauma		

\* FY 16/17 data unless noted otherwise.

\*\* Top or bottom 4 ranking in the province, compared to other LHINs.

## Complex Continuing Care Utilization

### Complex Continuing Care

- In 2016/17, there were 1,795 CCC active cases treated in South West LHIN hospitals and residents from outside the LHIN accounted for 7.7% of these active cases. In 2016/17, there were 1,468 admissions and 1,488 discharges from South West LHIN hospital CCC units. South West LHIN hospitals had a mean LOS of 79.0 days - ranking 9<sup>th</sup> across LHINs.
- There were reductions in the number of active cases (-8.8%), admissions (-9.3%), and discharges (-10.4%) for South West LHIN hospital CCC units between 2013/14 and 2016/17, while the number of total days of care remained relatively constant (0.2% increase).
- During the period, the mean length of stay in CCC beds increased from 70.7 days to 79.0 days.
- In 2016/17, there were 1,709 CCC active cases for South West LHIN residents, and 3.1% of these cases were treated in hospitals outside the LHIN.
- The active case rate for South West LHIN residents was lower than the provincial value.

### Utilization of Complex Continuing Care, South West LHIN and Ontario, 2016/17

Measure	South West LHIN		Ontario	
	LHIN Values	% Change 2013/14-2016/17	Provincial Value	% Change 2013/14-2016/17
<b>LHIN of Hospital</b>				
Active Cases	1,795	-8.8%	29,466	-0.1%
% Inflow	7.7%			
Admissions	1,468	-9.3%	24,108	0.5%
Discharges	1,488	-10.4%	23,995	-0.2%
Total Days	117,587	0.2%	1,855,227	-2.0%
mean LOS	79.0		77.3	
<b>LHIN of Patient</b>				
Active Cases	1,709	-12.9%	29,366	0.3%
Active cases/100,000 population	174.2	-14.7%	210.0	-2.9%
% Outflow	3.1%			
Admission	1,410	-12.6%	24,022	0.8%
Admissions/100,000 population	143.7		171.8	
Discharges	1,424	-14.2%	23,908	0.1%
Discharges/100,000 population	145.1		171.0	
Total Days	91,024	-21.7%	1,850,599	-1.1%
mean LOS	63.9		77.4	

## Alternate Level of Care

### LHIN overview<sup>6</sup>

#### South West LHIN

Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Rank
Acute ALC Days (closed cases)	58,664	45,598	49,907	55,909	NV	7
% ALC Days (Acute Inpatient closed cases)	10.7%	8.4%	9.2%	10.4%	NV	2
Volume of Closed Cases	4,149	4,051	4,334	4,354	4,122	9
Volume of Closed Cases - Home with CCAC Services	1,177	935	711	705	596	
Volume of Closed Cases - Long Term Care	1,123	1,132	1,255	1,143	1,013	
Volume of Closed Cases - Rehabilitation	688	691	893	830	839	
90 <sup>th</sup> Percentile Wait of Closed Cases (Days)	48	38	43	44	45	6
90 <sup>th</sup> Percentile Wait of Closed Cases - Home with CCAC Services	32	28	25	23	25	
90 <sup>th</sup> Percentile Wait of Closed Cases - Long Term Care	133	82	101	137	130	
90 <sup>th</sup> Percentile Wait of Closed Cases - Rehabilitation	17	16	14	15	17	
Volume of Open Cases on the last day of the year	223	219	272	243	266	8
Volume of Open Cases - Home with CCAC Services	42	29	23	13	22	
Volume of Open Cases - Long Term Care	112	121	155	148	155	
Volume of Open Cases - Supervised or Assisted Living	14	8	8	11	17	
90 <sup>th</sup> Percentile Wait of Open Cases	151	285	251	317	225	6
90 <sup>th</sup> Percentile Wait of Open Cases - Home with CCAC Services	39	46	24	126	74	
90 <sup>th</sup> Percentile Wait of Open Cases - Long Term Care	185	336	251	359	352	
90 <sup>th</sup> Percentile Wait of Open Cases - Supervised or Assisted Living	348	0	0	366	136	
Throughput Ratio (discharged case/newly added cases)	1.01	1.00	0.99	1.00	0.98	7
% of Cases Designated ALC Within 1 Day	13.3%	10.5%	12.2%	12.3%	11.3%	12
% of Cases Designated ALC Within 2 Days	17.5%	15.2%	17.4%	17.9%	16.9%	13
% of Cases Designated ALC Within 3 Days	22.6%	20.7%	23.0%	23.6%	22.7%	13
ALC Rate - All Inpatient Services	11.0%	9.7%	11.0%	11.7%	11.7%	3
ALC Rate - Acute Inpatient Services	9.6%	8.2%	9.4%	10.4%	10.2%	2
ALC Rate - Post-Acute Inpatient Services	13.6%	12.5%	14.2%	14.4%	14.6%	9
ALC Rate - CCC Inpatient Services	26.9%	23.9%	25.2%	28.5%	29.2%	10
ALC Rate - Rehab Inpatient Services	7.5%	5.7%	6.0%	8.9%	11.7%	11
ALC Rate - Mental Health Inpatient Services	7.6%	8.0%	10.4%	8.7%	8.4%	6

<sup>6</sup> Two hospital facilities in the South West LHIN do not participate in WTIS reporting.



## Closed ALC Cases

### Acute ALC Days

- Acute ALC Days decreased by 2,755 from FY 13/14 to FY 16/17

### % ALC Days (Acute Inpatient)

- % ALC Days decreased from 10.7% in FY 13/14 to 10.4% in FY 16/17

### Volume of Closed Cases

- The volume of closed cases for all inpatient services decreased by 1% from 4,149 in FY 13/14 to 4,122 in FY 17/18
  - Home with CCAC Services – number of closed cases decreased by 49% from 1,177 in FY 13/14 to 596 in FY 17/18
  - Long-term Care – number of closed cases decreased by 10% from 1,123 in FY 13/14 to 1,013 in FY 17/18
  - Rehabilitation – number of closed cases increased by 22% from 688 in FY 13/14 to 839 in FY 17/18

### 90<sup>th</sup> Percentile Wait of Closed Cases

- The wait time for closed cases (all inpatients services and all discharge destinations) decreased by 6% from 48 days in FY 13/14 to 45 days in FY 17/18. 9<sup>th</sup> in South West at the end of FY 17/18.
  - Home with CCAC Services – wait time decreased by 22% from 32 days in FY 13/14 to 25 days in FY 17/18.
  - Long-term Care – wait time decreased by 2% from 133 days in FY 13/14 to 130 days in FY 17/18.
  - Rehabilitation – wait time has remained steady at 17 days from FY 13/14 to FY 17/18

#### *Wait Time by Sub-Region of Patient Residence*

- **Oxford** residents had the longest wait in the LHIN at 76 days; **Huron Perth** had the shortest at 25 days.
- **Huron Perth** is tied 4<sup>th</sup> lowest in province

## Open ALC Cases

### Volume of Open Cases

- The number of ALC waitlist entries open across all inpatient bed types increased by 19% from 223 at the end of FY 13/14 to 266 at the end of FY 17/18
  - Home with CCAC Services – number of open cases decreased by 48% from 42 at the end of FY 13/14 to 22 at the end of FY 17/18
  - Long-term Care – number of open cases increased by 38% from 112 at the end of FY 13/14 to 155 at the end of FY 17/18
  - Supervised or Assisted Living – number of open cases increased by 21% from 14 at the end of FY 13/14 to 17 at the end of FY 17/18

### 90<sup>th</sup> Percentile Wait of Open Cases

- The wait time for open cases (all inpatients services and all discharge destinations) increased by 49% from 151 at the end of FY 13/14 to 225 at the end of FY 17/18. Patients awaiting discharge from South West LHIN hospitals had waited 180 days longer than patients who were discharged in 17/18, and had waited the 9<sup>th</sup> longest across the LHINs at the end of FY 17/18.
  - Home with CCAC Services – wait time increased by 90% from 39 days at the end of FY 13/14 to 74 days at the end of FY 17/18.

- Long-term Care – wait time increased by 90% from 185 days at the end of FY 13/14 to 352 days at the end of FY 17/18.
- Supervised or Assisted Living - wait time decreased by 61% from 348 days at the end of FY 13/14 to 136 days at the end of FY 17/18.

#### *Wait Time by Sub-Region of Patient Residence*

- **Oxford** residents had the longest wait in the LHIN at 491 days; **Huron Perth** had the shortest at 23 days
- **Huron Perth** is 2<sup>nd</sup> shortest in province

#### **ALC Wait Time (Days) by Sub-Region of Patient Residence**

South West LHIN					
<i>Closed &amp; Open Cases - All Discharge Destinations by Sub-Region</i>	<i>FY 2013/14</i>	<i>FY 2014/15</i>	<i>FY 2015/16</i>	<i>FY 2016/17</i>	<i>FY 2017/18</i>
<b>90<sup>th</sup> Percentile Wait of Closed Cases</b>					
201 GREY BRUCE	39	33	38	48	37
202 HURON PERTH	27	24	25	23	25
203 LONDON MIDDLESEX	70	47	52	63	61
204 ELGIN	42	27	23	30	38
205 OXFORD	42	52	83	68	76
<b>90<sup>th</sup> Percentile Wait of Open Cases</b>					
201 GREY BRUCE	126	59	64	161	141
202 HURON PERTH	31	59	50	25	23
203 LONDON MIDDLESEX	135	306	253	396	254
204 ELGIN	314	144	203	513	462
205 OXFORD	209	420	251	297	491

#### Hospital Processes and Capacity

##### **ALC Throughput Ratio**

- In the South West LHIN, the throughput ratio decreased from 1.01 in FY 13/14 to 0.98 in FY 17/18.

##### **Percentage of Patients Designated ALC within 1, 2 & 3 Days of Admission**

- The percentage of patients that have been designated as requiring an alternate level of care within one, two and three days of admission to hospital decreased over the last year in the South West LHIN. However, all 3 measures are amongst the highest rates in the province (3<sup>rd</sup>, 2<sup>nd</sup>, 2<sup>nd</sup> respectively).

##### **ALC Rate (All Inpatient Services)**

- The annual ALC rate for all inpatient beds increased from 11.0% in FY 13/14 to 11.7% in FY 17/18.
- In FY 17/18, the South West LHIN was below the provincial rate of 15.4%.

##### *Acute I/P Services*

- South West LHIN increased over the past 5 fiscal years (9.6% FY 13/14; 10.2% FY 17/18) and is 6.0% below the provincial value.

##### *Post-Acute I/P Services*

- South West LHIN increased over the past 5 fiscal years (13.6% FY 13/14; 14.6% FY 17/18). South West LHIN is above the provincial Post-acute ALC rate (6<sup>th</sup> highest in ON).
  - CCC Inpatient Services – 5<sup>th</sup> across LHINs for FY 17/18. Rate increased from 26.9% in FY 13/14 to 29.2% in FY 17/18.
  - Mental Health Inpatient Services – 9<sup>th</sup> across LHINs for FY 17/18. Rate increased from 7.6% in FY 13/14 to 8.4% in FY 17/18.
  - Rehab Inpatient Services - 4<sup>th</sup> across LHINs for FY 17/18. Rate increased from 7.5% in FY 13/14 to 11.7% in FY 17/18.

## LHIN/Facility/Site – Annual ALC Rate

Province/LHIN/Facility/Site			Annual ALC Rate					% Change FY 13/14 to FY 17/18
			FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	
<b>Provincial</b>			<b>13.8%</b>	<b>13.7%</b>	<b>13.9%</b>	<b>14.8%</b>	<b>15.4%</b>	
<b>LHIN</b>	<b>2</b>	<b>South West</b>	<b>11.0%</b>	<b>9.7%</b>	<b>11.0%</b>	<b>11.7%</b>	<b>11.7%</b>	<b>0.7%</b>
<b>Facility</b>	633	CLINTON PUBLIC HOSPITAL	30.0%	29.6%	23.6%	36.9%	30.2%	0.2%
<b>Facility</b>	655	SOUTH HURON HOSPITAL	NR	NR	10.1%	18.9%	10.3%	
<b>Facility</b>	676	HANOVER AND DISTRICT HOSPITAL	15.4%	10.6%	13.5%	13.5%	10.0%	(-5.4%)
<b>Facility</b>	684	ALEXANDRA HOSPITAL	30.3%	30.0%	36.9%	33.5%	29.3%	(-1.0%)
<b>Facility</b>	709	LISTOWEL MEMORIAL HOSPITAL	NR	12.5%	14.6%	10.8%	10.8%	(-1.7%)
<b>Facility</b>	714	ST JOSEPH'S HEALTH CARE, LONDON	7.3%	7.8%	8.9%	9.6%	11.6%	4.3%
<b>Site</b>	3884	ST JOSEPH'S LONDON (PARKWOOD)	6.8%	9.1%	10.4%	11.9%	14.7%	7.9%
<b>Site</b>	4255	ST JOSEPH'S - LONDON	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%
<b>Site</b>	4533	ST JOSEPH'S LONDON (MH)	11.2%	7.7%	NR	NR	NR	
<b>Site</b>	4534	ST JOSEPH'S LONDON (ST. THOMAS)	1.1%	4.5%	3.0%	0.1%	0.0%	(-1.1%)
<b>Facility</b>	792	ST MARYS MEMORIAL HOSPITAL	34.7%	28.7%	47.1%	38.2%	42.0%	7.3%
<b>Facility</b>	793	ST THOMAS-ELGIN GENERAL HOSPITAL	14.7%	15.2%	16.0%	20.4%	21.5%	6.8%
<b>Facility</b>	801	SEAFORTH COMMUNITY HOSPITAL	34.1%	26.4%	17.1%	19.6%	25.1%	(-9.0%)
<b>Facility</b>	813	STRATFORD GENERAL HOSPITAL	12.5%	10.6%	8.1%	9.2%	13.0%	0.5%
<b>Facility</b>	814	STRATHROY MIDDLESEX GENERAL HOSPITAL	17.3%	14.2%	15.9%	18.3%	22.9%	5.6%
<b>Facility</b>	824	TILLSONBURG DISTRICT MEMORIAL HOSPITAL	23.1%	14.7%	19.8%	26.9%	30.6%	7.5%
<b>Facility</b>	889	WINGHAM AND DISTRICT HOSPITAL	NR	11.1%	8.0%	20.6%	6.7%	(-4.4%)
<b>Facility</b>	890	WOODSTOCK GENERAL HOSPITAL	23.3%	13.3%	14.0%	13.2%	12.9%	(-10.4%)
<b>Facility</b>	936	LONDON HLTH SCIENCES CTR	8.3%	7.2%	8.8%	8.0%	6.2%	(-2.2%)
<b>Site</b>	4247	LONDON -VICTORIA WESTMI	4.3%	9.1%	8.9%	9.4%	3.4%	(-0.9%)
<b>Site</b>	4310	LONDON - UNIVERSITY SITE	8.7%	7.0%	8.8%	7.9%	6.5%	(-2.1%)
<b>Facility</b>	946	SOUTH BRUCE GREY HEALTH CENTRE	13.5%	9.4%	10.1%	10.6%	10.6%	(-2.9%)
<b>Site</b>	4081	SOUTH BRUCE GREY -DURHAM	12.8%	15.7%	14.0%	14.8%	7.4%	(-5.4%)
<b>Site</b>	4094	SOUTH BRUCE GREY -KINCARDINE	15.5%	8.3%	6.2%	7.8%	6.3%	(-9.2%)
<b>Site</b>	4095	SOUTH BRUCE GREY E-WALKERTON	17.4%	12.9%	12.3%	14.1%	16.0%	(-1.3%)
<b>Site</b>	4096	SOUTH BRUCE GREY -CHESLEY	5.0%	2.5%	9.7%	5.3%	10.0%	5.0%
<b>Facility</b>	955	GREY BRUCE HEALTH SERVICES	10.7%	11.2%	12.4%	16.8%	15.6%	4.8%
<b>Site</b>	4131	GREY BRUCE -OWEN SOUND	7.3%	8.1%	10.4%	12.3%	12.6%	5.3%
<b>Site</b>	4132	GREY BRUCE -MARKDALE SITE	26.5%	22.9%	21.9%	36.1%	36.8%	10.4%
<b>Site</b>	4133	GREY BRUCE -MEAFORD SITE	14.7%	22.5%	20.3%	32.9%	29.1%	14.4%
<b>Site</b>	4134	GREY BRUCE -SOUTHAMPTON	27.4%	21.9%	17.0%	23.4%	18.7%	(-8.8%)
<b>Site</b>	4135	GREY BRUCE -WIARTON SITE	11.3%	15.2%	13.9%	22.9%	13.6%	2.2%
<b>Site</b>	4377	GREY BRUCE -LIONS HEAD	11.8%	8.5%	18.2%	40.0%	21.5%	9.8%

\*If all 5 years are not available, then available years used to calculate % change

- In FY 17/18, St. Mary's Memorial Hospital had the highest ALC Rate across the South West LHIN at the facility level, with Grey Bruce – Markdale Site having the highest site level rate.
- Grey Bruce – Meaford Site had the greatest increase in ALC Rate since FY 13/14 (14.4%).
- Woodstock General Hospital had the greatest decrease in ALC Rate since FY 13/14 (-10.4%).

## Long-Term Care

### Long-Term Care Bed Supply

- 77 LTC homes are licensed and approved to operate in South West LHIN
- As of February 2018, there were a total of 7,376 Long-Term Care beds in operation in South West LHIN
  - With the exception of 99 beds designated as Short-stay, Respite or Convalescent care beds, almost all of the LTC beds are designated Long-Stay Beds or Interim beds.

### Long-Term Care Waitlist & Placements

- Of the 2,098 patients placed in South West LHIN Long-Term Care Homes in FY 2017/18, approximately 66% were from the community while only 26% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province)
- Of the 2,052 residents of South West LHIN placed in Ontario Long-Term Care Homes in FY 2017/18, approximately 65% were from the community while only 26% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province)
- The median time to placement in a South West LHIN long-term care home, as of March 2018, was 83 days.
  - Half of community patients waited less than 104 days for a placement in a South West LHIN LTC home while half of hospital patients waited less than 44 days for placement in a South West LHIN LTC Home.
- The median time to placement for a South West LHIN resident to be placed in a long-term care home, as of March 2018, was 84 days.
  - Half of community patients from South West LHIN waited less than 105 days for a placement in an Ontario LTC home while half of hospital patients waited less than 43 days for placement.
- As of March 2018, there were 1,547 patients on the waitlist waiting for placement in a Long-Term Care home in South West LHIN (not including patients awaiting transfer from one LTC home to another).
- As of March 2018, there were 1,582 residents of South West LHIN on the waitlist waiting for placement in an Ontario Long-Term Care home (not including patients awaiting transfer from one LTC home to another).

### Long-Stay Demand

- As of March 2018, there were 7,079 long-stay residents occupying LTC Homes within South West LHIN.
- When adjusted for the size of the older population, South West LHIN has approximately 91 Long-Stay beds per 1,000 people aged 75+.
- The gap between the demand and supply of Long-Term Care Homes in South West LHIN reflects a shortage of approximately 1,349 Long-Stay beds.
  - The largest gap is in the London-Middlesex sub-region (635 beds) and the smallest gap is in **Grey Bruce** (78 beds).

### **Selected Characteristics of Long-Term Care Home Residents**

- In South West LHIN, 82% of Residents were over the age of 75 with 55% being over the age of 85.
- In 2016/17, the mean age of residents of LTC Homes in South West LHIN was 83.
- The mean length of stay for residents of LTC Homes in South West LHIN was 835 days (about 2.3 years) with half of residents remaining in LTC homes for less than 478 days.
- Nearly 79% of residents need extensive help with daily activities such as getting out of bed, eating, or toileting; 24% are highly or entirely dependent on staff.
- 81% have some form of cognitive impairment; 24% are severely impaired.
- 48% exhibit some level of aggressive behaviour related to their cognitive impairment or mental health condition with 5% exhibiting very severe aggressive behavior.
- 62% of active LTC Residents in South West LHIN LTC Homes have been identified as having some form of dementia.

### Long-term care home supply, waitlists and placements, and resident characteristics, by LHIN sub-region

	Southwest LHIN		0201		0202		0203		0204		0205	
			Grey Bruce		Huron Perth		London Middlesex		Elgin		Oxford	
Long-term care bed supply in the sub-region (February 2018)	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-term care homes	77		19		18		23		8		8	
Long-stay beds	7,277	91.1	1,310	84.8	1,246	99.1	3,290	95.7	675	102.1	702	73.4
Short-stay, respite & convalescent care beds	99	1.2	15	1.0	13	1.0	42	1.2	8	1.2	20	2.1
Total beds in operation	7,376	92.3	1,325	85.7	1,259	100.1	3,332	96.9	683	103.3	722	75.5

*\*The denominator for the rate calculation refers to the number of sub-region residents age 75+; however the LTC homes/beds may serve individuals from other sub-regions. Therefore, rates should be interpreted with caution.*

	Southwest LHIN		0201		0202		0203		0204		0205	
			Grey Bruce		Huron Perth		London Middlesex		Elgin		Oxford	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>By sub-region of long-term care home (patients awaiting placement in a home within the sub-region)</b>												
Long-stay waitlist without transfer patients*	1,547	19.4	128	8.3	244	19.4	716	20.8	219	33.1	236	24.7
<b>Placements**</b>												
From community	1,384	66.0%	286	61.6%	233	58.4%	577	69.6%	146	78.5%	134	66.3%
From hospital	537	25.6%	157	33.8%	114	28.6%	184	22.2%	27	14.5%	49	24.3%
Total	2,098		464		399		829		186		202	
<b>Median time to placement (days)</b>												
From community	104		75.0		68.0		117.0		153.5		197.5	
From hospital	44		26.0		37.0		73.0		25.0		95.0	

	Southwest LHIN		0201		0202		0203		0204		0205	
			Grey Bruce		Huron Perth		London Middlesex		Elgin		Oxford	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Total	83		46.0		46.0		107.0		130.0		158.0	
<i>By sub-region of patient (patients who reside within the sub-region and are awaiting placement in any home)</i>												
Long-stay waitlist without transfer patients*	1,582	19.8	156	10.1	238	18.9	720	20.9	216	32.7	252	26.3
Placements**												
From community	1,336	65.1%	251	59.3%	212	59.6%	564	67.4%	148	83.6%	158	62.7%
From hospital	539	26.3%	153	36.2%	92	25.8%	208	24.9%	17	9.6%	66	26.2%
Total	2,052		423		356		837		177		252	
Median time to placement (days)												
From community	105		76.0		72.0		114.5		174.5		187.5	
From hospital	43		28.0		37.0		65.5		43.0		90.5	
Total	84		49.0		48.0		104.0		161.0		152.5	

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents

Placements from other locations (correctional facilities, homeless, out-of-province) are not shown but are included in the total placement values.



	Southwest LHIN		0201		0202		0203		0204		0205	
			Grey Bruce		Huron Perth		London Middlesex		Elgin		Oxford	
Long-stay demand (February / March 2018) for LTC homes in the sub-region	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-stay residents	7,079	88.6	1,260	81.5	1,214	96.5	3,209	93.3	665	100.6	678	70.9
Long-stay waitlist without transfer patients	1,547	19.4	128	8.3	244	19.4	716	20.8	219	33.1	236	24.7
Total demand	8,626	108.0	1,388	89.8	1,458	116.0	3,925	114.2	884	133.7	914	95.6
Total long-stay supply	7,277	91	1,310	84.8	1,246	99.1	3,290	95.7	675	102.1	702	73.4
Difference between supply and demand	1,349	17	78	5.0	212	16.9	635	18.5	209	31.6	212	22.2

	Southwest LHIN		0201		0202		0203		0204		0205	
			Grey Bruce		Huron Perth		London Middlesex		Elgin		Oxford	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Demography, volume and length of stay (LOS)</b>												
Active LTC Residents*	6,468	81.0	1,175	76.0	1,119	89.0	2,914	84.8	598	90.4	611	63.9
Number of admissions*	2,889	36.2	558	36.1	544	43.3	1,279	37.2	241	36.4	244	25.5
<b>By age group**</b>												
Residents age <65	447	6.9%	77	6.6%	79	7.1%	217	7.4%	37	6.2%	35	5.7%
Residents age 65-74	723	11.2%	139	11.8%	115	10.3%	342	11.7%	56	9.4%	68	11.1%

	Southwest LHIN		0201		0202		0203		0204		0205	
			Grey Bruce		Huron Perth		London Middlesex		Elgin		Oxford	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Residents age 75-84	1,741	26.9%	318	27.1%	277	24.8%	792	27.2%	166	27.8%	177	29.0%
Residents age 85+	3,557	55.0%	641	54.6%	648	57.9%	1,563	53.6%	339	56.7%	331	54.2%
Mean age of residents	83		83		84		83		84		84	
Mean age of residents at admission	83		83		84		83		83		83	
<b>Length of stay</b>												
Mean LOS (days)	835		834		772		871		699		906	
Median LOS (days)	478		455		367		517		405		589	
<b>Residents by level of ADL assistance required**</b>												
None or limited assistance required	1,375	21.3%	212	18.0%	192	17.2%	702	24.1%	151	25.3%	111	18.2%
Extensive assistance required	3,573	55.2%	655	55.7%	674	60.2%	1,523	52.3%	321	53.7%	377	61.7%
Dependent	1,520	23.5%	308	26.2%	253	22.6%	689	23.6%	126	21.1%	123	20.1%
<b>Residents by level of aggressive behaviour**</b>												
No signs of aggressive behaviour	3,357	51.9%	568	48.3%	620	55.4%	1,421	48.8%	346	57.9%	371	60.7%
Some signs of aggressive behaviour	1,795	27.8%	343	29.2%	299	26.7%	850	29.2%	147	24.6%	144	23.6%
Moderate to severe aggressive behaviour	997	15.4%	208	17.7%	159	14.2%	465	16.0%	92	15.4%	67	11.0%
Very severe aggressive behaviour	316	4.9%	55	4.7%	41	3.7%	178	6.1%	13	2.2%	29	4.7%
<b>Cognitive impairment categories **</b>												

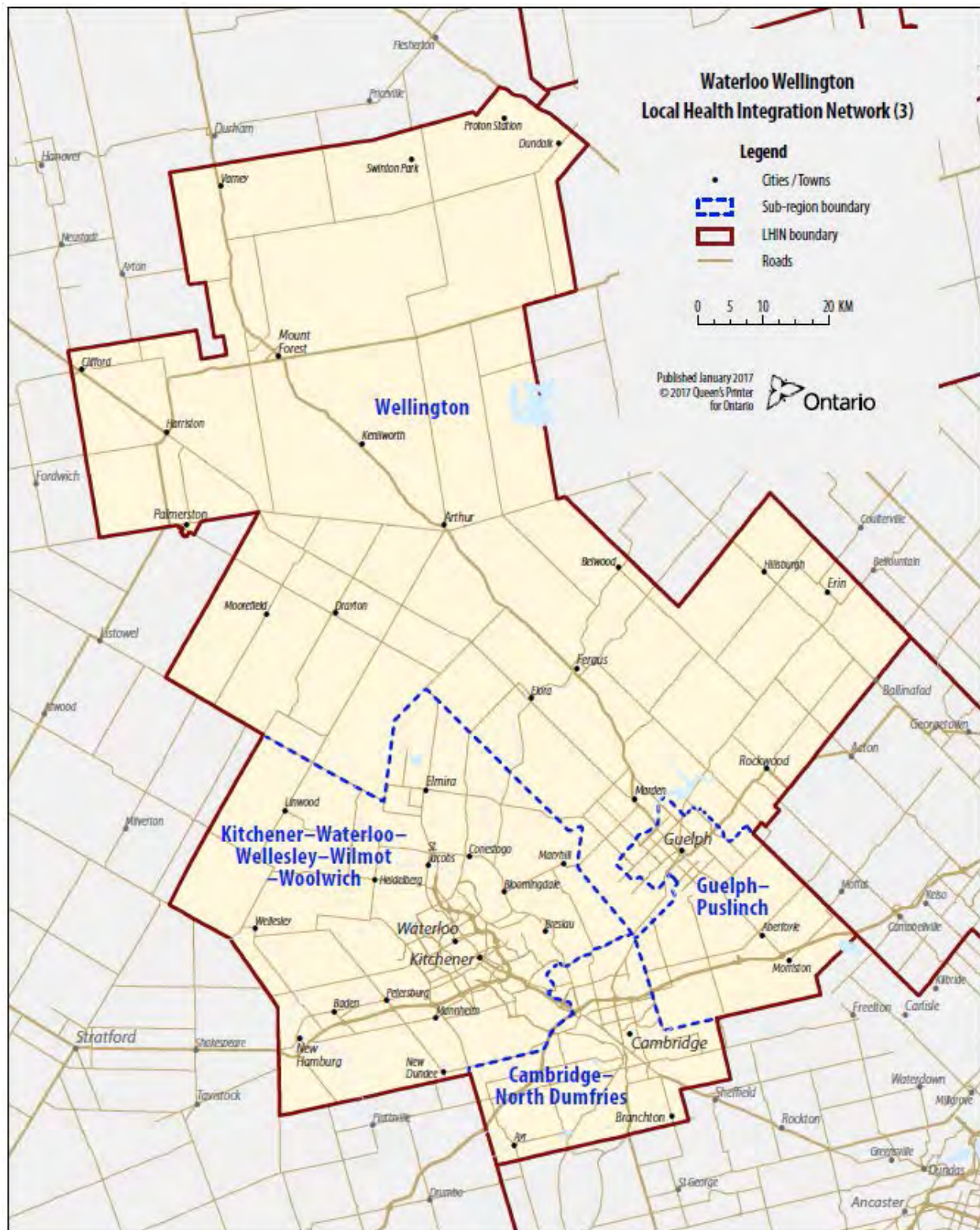
	Southwest LHIN		0201		0202		0203		0204		0205	
			Grey Bruce		Huron Perth		London Middlesex		Elgin		Oxford	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Relatively intact	1,222	18.9%	136	11.6%	213	19.0%	588	20.2%	137	22.9%	137	22.4%
Mild impairment	3,706	57.3%	696	59.2%	654	58.4%	1,629	55.9%	347	58.0%	360	58.9%
Severe impairment	1,540	23.8%	343	29.2%	252	22.5%	697	23.9%	114	19.1%	114	18.7%
<b>RUG categories **</b>												
1 Extensive Services	232	3.6%	34	2.9%	31	2.8%	132	4.5%	26	4.3%	9	1.5%
2 Special Rehabilitation	171	2.6%	48	4.1%	24	2.1%	55	1.9%	20	3.3%	19	3.1%
3 Special Care	747	11.5%	180	15.3%	159	14.2%	284	9.7%	58	9.7%	59	9.7%
4 Clinically Complex	1,514	23.4%	291	24.8%	230	20.6%	748	25.7%	111	18.6%	126	20.6%
5 Impaired Cognition	798	12.3%	157	13.4%	152	13.6%	351	12.0%	63	10.5%	72	11.8%
6 Behavioural Problems	98	1.5%	9	0.8%	10	0.9%	64	2.2%	7	1.2%	8	1.3%
7 Reduced Physical Functions	2,908	45.0%	456	38.8%	513	45.8%	1,280	43.9%	313	52.3%	318	52.0%
<b>Residents with Dementia**</b>	<b>4,023</b>	<b>62.2%</b>	<b>779</b>	<b>66.3%</b>	<b>638</b>	<b>57.0%</b>	<b>1,799</b>	<b>61.7%</b>	<b>390</b>	<b>65.2%</b>	<b>389</b>	<b>63.7%</b>

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents



### 3. Waterloo Wellington LHIN



## Contents

<b>3. Waterloo Wellington LHIN</b>	<b>1</b>
<b>Highlights</b>	<b>1</b>
Waterloo Wellington LHIN .....	1
Residents of Waterloo Wellington LHIN Sub-Regions .....	3
<b>Population Characteristics</b>	<b>7</b>
Population Estimates .....	7
2016 Census Profile .....	8
Births and Mortality.....	15
General Health, Risk Factors, and Prevention.....	20
Chronic Conditions .....	22
<b>Human Resources</b>	<b>32</b>
<b>Primary Care</b>	<b>35</b>
Primary Care Enrolment .....	35
Selected Measures from the Health Care Experience Survey .....	35
<b>Community Care</b>	<b>37</b>
<b>Mental Health</b>	<b>38</b>
Wait Time for Community Services.....	38
Mental Health and Substance Abuse Emergency Department Visits.....	38
Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility .....	39
<b>Surgery &amp; Diagnostic Imaging</b>	<b>41</b>
Day Surgery and Cardiac Catheterization Utilization .....	41
Surgical & Diagnostic Imaging Wait Times .....	42
<b>Oncology and Dialysis</b>	<b>51</b>
<b>Home Care</b>	<b>55</b>
<b>Palliative Care</b>	<b>57</b>
<b>Emergency Department</b>	<b>60</b>
Emergency Department Utilization .....	60
Emergency Department Performance .....	64
<b>Acute Care</b>	<b>66</b>
Acute Care Utilization by Residents of the Waterloo Wellington LHIN .....	66
Acute Care Utilization for Waterloo Wellington LHIN Facilities .....	68
Acute Care Inflow/Outflow.....	69
<b>Post-Acute Care</b>	<b>70</b>
Inpatient Rehabilitation Utilization .....	70
Complex Continuing Care Utilization .....	73
<b>Alternate Level of Care</b>	<b>74</b>
Closed ALC Cases .....	75
Open ALC Cases .....	75
Hospital Processes and Capacity .....	76
<b>Long-Term Care</b>	<b>78</b>

## Highlights

Comprehensive information about population demographics, health status, health outcomes, chronic conditions, human resources, primary care, health service utilization, and long-term care in the Waterloo Wellington LHIN can be found under the content headings of in the remainder of this document, beginning with the socio-demographic profile. This Highlights introduction is intended to provide a guide to areas in which either the Waterloo Wellington LHIN or one of its sub-regions is significantly different from the province as a whole. Sub-region comparisons within this section are always to the other 75<sup>1</sup> sub-regions across the province, and LHIN comparisons are always to the other 13 LHINs.

### Waterloo Wellington LHIN

#### Population Characteristics

- The Waterloo Wellington LHIN had the lowest CSS resident days for assisted living, overnight stay care per 1,000 population 75+.
- **Highest** rate of palliative home visits in the last 90 days of life (tied with [North Simcoe Muskoka LHIN](#)).
- **Significantly lower** percentage of people who died in hospital compared to Ontario.
- Residents of Waterloo Wellington LHIN had the **shortest** acute length of stay in 2016/17.
- Waterloo Wellington LHIN hospitals had the **largest** percentage increase in acute separations between 2013/14 and 2016/17.
- Waterloo Wellington hospitals had the **shortest** acute length of stay.
- Residents of the Waterloo Wellington LHIN had the **lowest** rehabilitation admission rate per 100,000 population in FY16/17.
- Waterloo Wellington LHIN residents had the **shortest** length of stay in CCC beds.

#### Strengths

- The Waterloo Wellington LHIN has the lowest percentage of residents in all age categories living below the low-income measure.
- The Waterloo Wellington LHIN has the **highest** employment rate and the **lowest** unemployment rate.
- Waterloo Wellington LHIN had the highest rate of exclusive breastfeeding at discharge among term live births in the province.
- Waterloo Wellington residents report significantly healthier eating habits than those of the province as a whole. However, there was no statistically significant difference between any of the Waterloo Wellington sub-regions and the province.
- Residents of the Waterloo Wellington LHIN have the lowest prevalence of suffering from effects of a stroke.
- **Significantly lower** rate of unplanned ED visits in the last 30 days of life than the province as a whole.
- **Significantly lower** percentage than Ontario of palliative care patients discharged from hospital who visited the ED at least once within 30 days.
- The Waterloo Wellington LHIN had the 2<sup>nd</sup> lowest mean total length of acute stay out of all LHINs.
- Waterloo Wellington LHIN had the **lowest** inpatient rehabilitation admission rate.

---

<sup>1</sup> Or however many sub-regions have reported data across the province.

- The Waterloo Wellington LHIN tied for the **shortest** ALC wait time for closed cases at the end of 2017/18.

#### Challenges/Opportunities

- A **significantly lower** proportion of Waterloo Wellington residents indicated that they received a flu shot in the year preceding the survey than Ontarians as a whole.
- Overweight or obesity rates were **significantly higher** than Ontario in Waterloo Wellington.
- Waterloo Wellington emergency departments had the **longest** time to disposition and the **longest** length of stay for non-admitted low acuity patients.



## GUELPH-PUSLINCH SUB-REGION HIGHLIGHTS

### Population Characteristics

- 2<sup>nd</sup> highest rate of palliative home visits in the last 90 days of life in 2016/17.
- 3<sup>rd</sup> lowest percentage of residents who died in hospital.
- Among the shortest acute length of stay in acute hospital beds in 2016/17.

### Strengths

- A **significantly higher** proportion of Guelph-Puslinch residents report having a regular medical doctor than Ontarians as a whole.
- The rate of physical inactivity was **significantly lower** (better) than Ontario's.
- The prevalence rate of hypertension was **significantly lower** than Ontario's.
- The prevalence rate of heart disease was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- Ranked in the lowest 8 among Ontario sub-regions in terms of mean total and acute lengths of stay – with values well below Ontario.
- In 2017/18, residents of Guelph-Puslinch had the 4<sup>th</sup> shortest wait before being discharged from hospital with an ALC designation (closed cases).

### Challenges/Opportunities

- Guelph-Puslinch was not significantly different from the rest of Ontario in any areas of challenge or opportunity.

## CAMBRIDGE-NORTH DUMFRIES SUB-REGION HIGHLIGHTS

### Population Characteristics

- Cambridge-North Dumfries was not significantly different from the rest of Ontario in any population characteristics.

### Strengths

- A **significantly higher** proportion of the residents of the Cambridge-North Dumfries sub-region report having a regular medical doctor than Ontarians as a whole.
- The prevalence rate of hypertension was **significantly lower** than Ontario.
- Ranked in the lowest 8 among Ontario sub-regions in terms of mean total and acute lengths of stay – with values well below Ontario.
- 6<sup>th</sup> lowest mean length of stay for inpatient rehabilitation.
- 5<sup>th</sup> highest rate of palliative home visits in the last 90 days of life in 2016/17.
- 8<sup>th</sup> lowest percentage of patients with two or more acute inpatient admissions in the last 30 days of life.
- 5<sup>th</sup> lowest percent of residents with one or more unplanned ED visits in the last 30 days of life.
- Among the shortest acute length of stay in acute hospital beds in 2016/17.
- Among the shortest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- 6<sup>th</sup> shortest rehabilitation length of stay.
- In 2017/18, residents of Cambridge-North Dumfries had the **shortest** wait before being discharged from hospital with an ALC designation (closed cases).

### Challenges/Opportunities

- **Significantly higher** smoking rates compared to Ontario.

## KITCHENER-WATERLOO-WILMOT-WELLESLEY-WOOLWICH SUB-REGION HIGHLIGHTS

### Population Characteristics

- The **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** sub-region was the sixth largest in the province.
- 8<sup>th</sup> highest rate of palliative home visits in the last 90 days of life in 2016/17.
- 7<sup>th</sup> lowest percent of residents with one or more unplanned ED visits in the last 30 days of life.

### Strengths

- The prevalence rate of hypertension was **significantly lower** than Ontario.
- Among the 8 sub-regions with the lowest percentage of complex patients (4+ conditions).
- In 2017/18, residents of **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** tied for the 2<sup>nd</sup> shortest wait before being discharged from hospital with an ALC designation (closed cases).

### Challenges/Opportunities

- **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** was not significantly different from the rest of Ontario in any areas of challenge or opportunity.

## WELLINGTON SUB-REGION HIGHLIGHTS

### Population Characteristics

- 7<sup>th</sup> lowest percentage of residents who meet the new inclusive definition of Francophone.
- 8<sup>th</sup> highest fertility rate among 15 to 49 year olds in the province.
- 2<sup>nd</sup> lowest small for gestational age rate in the province.
- Among the shortest acute length of stay in acute hospital beds in 2016/17.

### Strengths

- **Lowest** rate of unemployment among all Ontario sub-regions.
- 6<sup>th</sup> lowest low birth weight rate in the province.
- 2<sup>nd</sup> lowest full-term low birth weight rate in the province.
- Very good or excellent health was significantly more compared to Ontario overall.
- A **significantly higher** proportion of the residents of the **Wellington** sub-region report having a regular medical doctor than Ontarians as a whole.
- The rate of physical inactivity was **significantly lower** (better) than Ontario.
- 2<sup>nd</sup> highest percent of residents who report satisfaction with health care in their community.
- 6<sup>th</sup> lowest percent of residents who went to a walk in clinic for something that could have been treated by provider if they were available.
- Ranked in the lowest 8 among Ontario sub-regions in terms of mean total and acute lengths of stay – with values well below Ontario.

### Challenges/Opportunities

- Among the 8 sub-regions with the highest hospitalization rates for stroke.

## Population Characteristics

### Population Estimates<sup>2</sup>

- As of 2016, the population of the Waterloo Wellington LHIN is estimated to be 783,024, a 4.9% increase over 2011.
  - The populations 65 and over and 75 and over represent 15% and 6% of the total population respectively.
- The population of the Waterloo Wellington LHIN is projected to increase by 6.5% by 2021 and by 12.3% by 2026.

### Population Estimates from 2016 Census and Ministry of Finance

	Ontario	Waterloo Wellington	Comments†
2011 Census, total population	12,851,821	723,356	
2016 Census, total population	13,448,494	766,027	
Population growth between 2011 and 2016 (based on Census)	4.6%	5.9%	
Estimated population, 2011	13,263,544	746,508	
<b>Estimated population, 2016</b>	<b>13,982,984</b>	<b>783,024</b>	
% population age 65+	16.38%	14.68%	
% population age 75+	7.17%	6.29%	
<b>% population change estimated 2011-2016</b>	<b>5.4%</b>	<b>4.9%</b>	
Projected population, 2021	14,980,422	834,034	
Projected population, 2026	15,822,463	879,021	
% changes (based on changes from the 2016 estimates)			
% population change forecasted 2016-2021	7.1%	6.5%	
% population change forecasted 2016-2026	13.2%	12.3%	

### Sub-Region Population Estimates from Ministry of Finance, 2016

Sub-Region Name	Total population	Age 65plus	% 65+	Age 75plus	% 75+
Guelph-Puslinch	140,008	20,684	14.77%	9,120	6.51%
Cambridge-North Dumfries	146,894	20,487	13.95%	8,560	5.83%
Kitchener-Waterloo- Wilmot- Wellesley- Woolwich	402,042	57,601	14.33%	24,875	6.19%
Wellington	94,119	16,208	17.22%	6,673	7.09%

<sup>2</sup> Please see note in Ontario chapter on Census versus Ministry of Finance estimates.

### Census Demographics

- 17.8% of the population was in the age group 0-14 and 67.2% was in the age group 15-64.
- The dependency ratio in Waterloo Wellington at 63.9 was lower than the province at 64.5.
- The largest proportion of Waterloo Wellington's population (78.6%) lived in large urban communities.
- 7.4% of Waterloo Wellington's population lived in medium/small population centre communities.
- The smallest proportion of Waterloo Wellington's population (6.7%) lived in rural or small communities adjacent to urban areas communities.
- 7.3% of Waterloo Wellington's population lived in rural and small town communities.
- Waterloo Wellington's land mass measures 4,751 square kilometres, making it the 5<sup>th</sup> smallest LHIN in the province.
- Waterloo Wellington's population density was 161.2 persons per square kilometre making it the 6<sup>th</sup> most densely populated LHIN in the province.

### Households

- In 2016, 106,030 households contained one or more family members aged 65 years and over. 23.5% of those individuals were living alone.
  - By sub-region, **Guelph-Puslinch** had the highest rate of seniors living alone (25.5%) and **Wellington** had the lowest (20.8%).
  - **Guelph-Puslinch** had the highest rate of one person households (26.5%) and **Wellington** had the lowest (20.5%)
  - **Wellington** had the highest rate of 5 or more person households (11.4%) and **Guelph-Puslinch** had the lowest (8.5%).
- In 2016, 131,935 families with children were living within the boundaries of the Waterloo Wellington LHIN. 25.0% of those families were lone parent.
  - By sub-region, **Cambridge-North Dumfries** had the highest rate of lone-parent families (27.1%) and **Wellington** had the lowest (18.7%)
- The total number of owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio was 288,585. 23.3% of those households spent 30% or more of their income on rent or payments.
  - By sub-region, **Guelph-Puslinch** and **Kitchener-Waterloo- Wilmot-Wellesley- Woolwich** had the highest rate (23.9%) and **Wellington** had the lowest (21.0%).
- The total number of private households was 292,095. 70.1% of those were owner occupied and 29.9% were rented.
  - By sub-region and owner occupation rate, **Wellington** had the highest rate (83.9%) with **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** having the lowest (67.0%).
- 5.1% of the private households in the Waterloo Wellington were in need of major repair.
  - By sub-region and housing in need of repair, **Cambridge-North Dumfries** and **Wellington** had the highest rate (5.6%) and **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** had the lowest (4.8%).
- 4.2% of the private households in the Waterloo Wellington LHIN had an insufficient number of bedrooms to accommodate the household makeup.
  - By sub-region and housing suitability, **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** had the highest rate of unsuitable housing (4.5%) and **Wellington** had the lowest (2.8%).

## Language

- 77.5% of the population reported English and 1.4% reported French as their mother tongue in Waterloo Wellington LHIN.
  - By sub-region, **Wellington** had the highest proportion (86.7%) and **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** had the lowest proportion of residents who identified English as their mother tongue (73.3%).
  - By sub-region, **Guelph-Puslinch** had the highest proportion (1.6%) and **Wellington** had the lowest proportion of residents who identified French as their mother tongue (1.1%).
- In 2016, 1.6% of Waterloo Wellington LHIN residents were Francophone under the 2009 new Inclusive Definition of Francophone.
  - By sub-region, **Guelph-Puslinch** had the highest proportion of Francophone residents (1.8%) and **Wellington** had the lowest (1.1%). However, the 2009 new Inclusive Definition of Francophone brings the number of French speaking residents in Waterloo Wellington LHIN to 754,875.
- 1.6% of the LHIN's population reported no knowledge of either official language.
  - By sub-region, **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** reported the highest proportion of residents with no knowledge of English or French (1.8%) and **Wellington** had the lowest (0.9%).
- English was spoken most often at home (84.8%), followed by English and a non-official language (3.7%), German (1.3%), Mandarin (1.1%) and Spanish (0.7%).

## Income

- In the Waterloo Wellington LHIN, 11.6% of the population lived in low income, based on the after-tax low income measure (LIM-AT). That was the **lowest** proportion among the 14 LHINs.
  - The proportion of residents living below the low income measure varied by sub-region, from 9.9% in the **Wellington** sub-region to 12.8% in the **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** sub-region.
  - The proportion of households in the lowest income quintile ranged across sub-regions in the Waterloo Wellington LHIN, from 15.0% in the **Cambridge-North Dumfries** to 17.8% in the **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich**.
- In the Waterloo Wellington LHIN, 16.5% of children under the age of 6 lived in low income households.
  - By sub-region, children living in low income households ranged from 14.1% in the **Guelph-Puslinch** sub-region to 17.8% in the **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** sub-region.
- The proportion of households in the highest income quintile varied across sub-regions in the Waterloo Wellington LHIN, from 19.9% in the **Cambridge-North Dumfries** sub-region to 23.0% in the **Guelph-Puslinch** sub-region. Waterloo Wellington, as a whole, had the lowest proportion in the highest income quintile (16.5%) among the 14 the LHINs.

## Immigration

- In 2016, immigrants accounted for 20.9% of the Waterloo Wellington LHIN population. From 1980 to 2016, 43.5% of immigrants were admitted as economic immigrants, 29.6% were sponsored by family and 26.1% were admitted as refugees. 2.4% of Waterloo Wellington LHIN residents were **recent immigrants**, having arrived in Canada between 2011 and 2016. Of the recent immigrants, the highest proportion (12.9%) came from India, followed by China (9.7%) and the Philippines (8.0%).

- Among the four Waterloo Wellington LHIN sub-regions, the percentage of immigrants ranged from 10.1% in [Wellington](#) to 23.6% in [Kitchener-Waterloo-Wilmot-Wellesley-Woolwich](#).
- The percentage of recent immigrants ranged from 0.5% in [Wellington](#) to 3.1% in [Kitchener-Waterloo-Wilmot-Wellesley-Woolwich](#)
- In 2016, 22.9% of the Waterloo Wellington LHIN population were **first generation Canadians** (children of immigrants).
  - Among the four Waterloo Wellington LHIN sub-regions, the percentage of first generation Canadians ranged from 10.8% in [Wellington](#) to 26.4% in [Kitchener-Waterloo-Wilmot-Wellesley-Woolwich](#).

### Visible Minorities

- In 2016, 16.9% of the Waterloo Wellington LHIN population was a visible minority.
  - Among the four Waterloo Wellington LHIN sub-regions, the percentage of visible minorities ranged from 2.8% in [Wellington](#) to 20.5% in [Kitchener-Waterloo-Wilmot-Wellesley-Woolwich](#).

### Indigenous (Aboriginal) Identity

- 1.7% of the Waterloo Wellington LHIN's residents identified as Aboriginal, with 1.0% identifying as First Nations and 0.6% as Métis.
  - Among the four Waterloo Wellington LHIN sub-regions, the percentage of residents reporting Aboriginal identity ranged from 1.5% in [Guelph-Puslinch](#) 2.0% in [Cambridge-North Dumfries](#).

### Education

- In 2016, 28.7% of residents of the Waterloo Wellington LHIN of working age had completed post-secondary education, ranking 5<sup>th</sup> across the province.
  - Across Waterloo Wellington sub-regions, the percentage of the population with less than high school ranged from 9.1% in [Guelph-Puslinch](#) to 16.4% in [Wellington](#).
  - The percentage of the population with high school completion ranged from 24.3% in [Kitchener-Waterloo-Wilmot-Wellesley-Woolwich](#) to 30.5% in [Cambridge-North Dumfries](#).
  - The percentage of the population with post-secondary education below bachelor's degree ranged from 30.9% in [Guelph-Puslinch](#) to 37.9% in [Wellington](#).
  - The percentage of the population with bachelor's degree completion and beyond ranged from 17.9% in [Wellington](#) to 35.5% in [Guelph-Puslinch](#).

### Labour Force Participation

- Waterloo Wellington LHIN had the 2<sup>nd</sup> highest labour force participation rate among people age 15+ (69%), and the **lowest** unemployment rate of all LHINs (6.0%).
- Of those employed in 2016, 30% of Waterloo Wellington LHIN residents had a commute time from their residence to their place of work of 30 minutes or more, while 13.7% had a commute time of 45 minutes or more.



2016 Census Profile	Ontario	Waterloo Wellington	Comments†
<b>Census Population 2016</b>			
Dependency ratio (number of "dependents" for every 100 "workers")	64.5	63.9	
<b>Urban-Rural Gradient</b>			
% large urban	68.1%	78.6%	
% medium/small population centre	14.7%	7.4%	
% rural or small communities adjacent to urban areas	8.4%	6.7%	
% rural and small town	8.8%	7.3%	
Land Area (sq km)	908,699	4,751	
Population Density (persons per square kilometre)	14.8	161.2	
<b>Population by Household and Families</b>			
% of people age 65+ living alone	23.5%	23.5%	
% of dwellings in need of major repairs	6.1%	5.1%	
% of households with an insufficient # of bedrooms	6.0%	4.2%	
<b>Language</b>			
% who report English as their mother tongue	69.5%	77.5%	
% who report French as their mother tongue	4.3%	1.4%	
% with no knowledge of English or French	2.5%	1.6%	
% Francophone (IDF)	4.7%	1.6%	
<b>Population (in Private Households) Living in Low Income</b>			
% Population living below low-income measure (LIM-AT)	14.4%	11.6%	Lowest
% Children living in low income households/LIM (age<6)	19.8%	16.5%	Lowest
% Children living in low income households/LIM (age<18)	18.4%	14.6%	Lowest
% Seniors living in low income households/LIM (age 65+)	12.0%	10.2%	
<b>Immigration</b>			
% of population who are immigrants	29.1%	20.9%	
% of population who arrived within 5 years	3.6%	2.4%	
% first generation Canadian (children of immigrants)	31.1%	22.9%	
<b>Visible Minorities</b>			
% of population who are visible minorities	29.3%	16.9%	
<b>Indigenous Identity</b>			
% of population of Aboriginal identity	2.8%	1.7%	
% population First Nations identity	1.8%	1.0%	
% population Metis identity	0.9%	0.6%	
% population Inuk identity	0.0%	0.0%	
% Multiple Aboriginal responses	0.0%	0.0%	
% Aboriginal responses not included elsewhere	0.1%	0.0%	
<b>Educational Attainment</b>			
% Population age 25-64 with less than high school	10.4%	11.6%	
% Population age 25-64 with high school completion	24.5%	25.9%	
% Population age 25-64 with post-secondary education below bachelor's degree	33.2%	33.8%	
% Population age 25-64 with bachelor's degree completion and beyond	31.9%	28.7%	
<b>Labour Force Activity</b>			
% In the labour force (Participation rate)	64.7%	69.0%	2 <sup>nd</sup> highest
% Unemployed	7.4%	6.0%	Lowest
% 60 minutes and over commuting duration	12.4%	7.6%	

†Ranking in the province, compared to other LHINs.

## Sub-Region Profiles, 2016 Census

Sub-Region	Guelph-Puslinch	Cambridge-North Dumfries	Kitchener-Waterloo-Wilmot-Wellesley-Woolwich	Wellington
<b>Census Population 2016</b>				
Dependency ratio (number of "dependents" for every 100 "workers")	61.6	64.8	61.9	75.4
<b>Urban-Rural Gradient</b>				
% large urban	94.2%	91.9%	86.4%	1.4%
% medium/small population centre	0.0%	3.0%	6.8%	27.7%
% rural or small communities adjacent to urban areas	5.8%	5.1%	4.8%	18.5%
% rural and small town	0.0%	0.0%	2.0%	52.4%
Land Area (sq km)	302	300	1,068	3,081
Population Density (persons per square kilometre)	460.9	466.4	369.7	29.8
<b>Population by Household and Families</b>				
% of people age 65+ living alone	25.5%	22.6%	23.8%	20.8%
% Of dwellings in need of major repairs	5.0%	5.6%	4.8%	5.6%
% of households with an insufficient # of bedrooms	3.9%	4.4%	4.5%	2.8%
<b>Language</b>				
% who report English as their mother tongue	79.4%	81.5%	73.3%	86.7%
% who report French as their mother tongue	1.6%	1.5%	1.4%	1.1%
% with no knowledge of English or French	1.3%	1.5%	1.8%	0.9%
% Francophone	1.8%	1.7%	1.7%	1.1%
<b>Population (in Private Households) Living in Low Income</b>				
% Population living below low-income measure (LIM-AT)	10.8%	10.3%	12.8%	9.9%
% Children living in low income households/LIM (age<6)	14.1%	15.4%	17.8%	16.3%
% Children living in low income households/LIM (age<18)	12.9%	13.7%	15.9%	12.9%
% seniors living in low income households/LIM (age 65+)	9.0%	10.6%	10.4%	10.4%
<b>Population by Income Quintiles</b>				
% Economic families in Income quintile 1 - lowest income	16.0%	15.0%	17.8%	14.0%
% Economic families in Income quintile 2	17.2%	19.4%	18.3%	18.9%
% Economic families in Income quintile 3	20.9%	22.2%	20.4%	21.0%
% Economic families in Income quintile 4	22.9%	23.5%	21.8%	23.4%
% Economic families in Income quintile 5 - highest income	23.0%	19.9%	21.7%	22.6%

Sub-Region	Guelph-Puslinch	Cambridge-North Dumfries	Kitchener-Waterloo-Wilmot-Wellesley-Woolwich	Wellington
<b>Immigration</b>				
% of population who are immigrants	21.3%	19.8%	23.6%	10.1%
% of population who arrived within 5 years	2.6%	1.4%	3.1%	0.5%
% first generation Canadian (children of immigrants)	23.1%	20.6%	26.4%	10.8%
<b>Visible Minorities</b>				
% of population who are visible minorities	18.2%	14.7%	20.5%	2.8%
<b>Indigenous Identity</b>				
% of population of Aboriginal identity	1.5%	2.0%	1.6%	1.7%
% population First Nations identity	0.8%	1.3%	1.0%	0.9%
% population Metis identity	0.6%	0.6%	0.5%	0.6%
% population Inuk identity	0.0%	0.0%	0.0%	0.0%
% Multiple Aboriginal responses	0.0%	0.0%	0.0%	0.1%
% Aboriginal responses not included elsewhere	0.0%	0.1%	0.0%	0.0%
<b>Educational attainment</b>				
% Population age 25-64 with less than high school	9.1%	13.5%	10.8%	16.4%
% Population age 25-64 with high school completion	24.5%	30.5%	24.3%	27.8%
% Population age 25-64 with post-secondary education below bachelor's degree	30.9%	37.1%	32.7%	37.9%
% Population age 25-64 with bachelor's degree completion and beyond	35.5%	18.9%	32.2%	17.9%
<b>Labour Force Activity</b>				
% In the labour force (Participation rate)	70.3%	69.4%	68.3%	69.3%
% Unemployed	6.0%	6.3%	6.3%	4.1%
% 60 minutes and over commuting duration	8.7%	8.8%	5.9%	11.3%

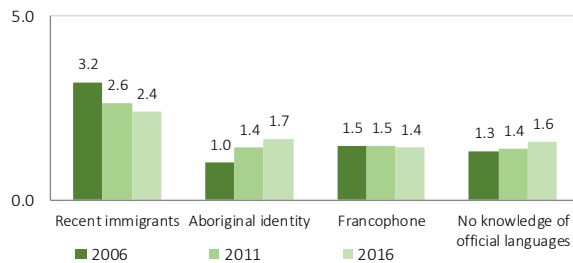
## Waterloo Wellington

### 2016 Census Profile Summary

#### Number of private dwellings

2006	269,990
2011	290,847
2016	308,439

#### Immigration, identity and language (% of population)

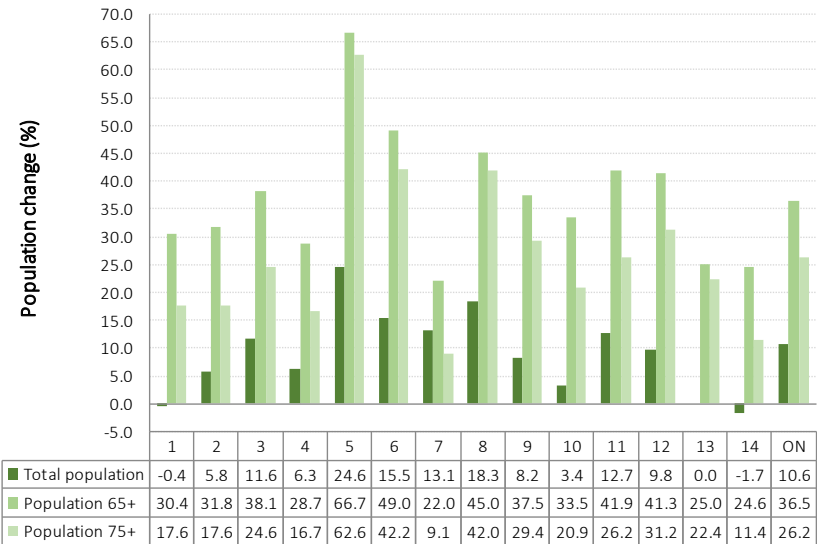


#### Population change (2006-2016)

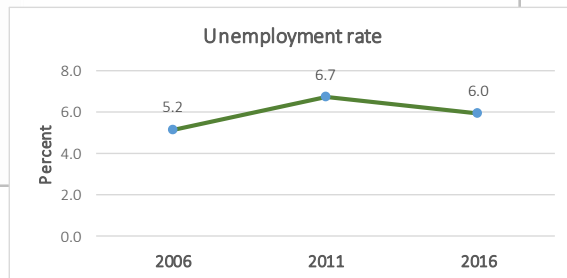
The growth of the senior (65+) population across LHINs ranged from 67% in Central West to 22% in Toronto Central.

The growth of the population age 75+ in Waterloo Wellington between 2006 and 2016 was 24.6%, compared to 26.2% for the province as a whole. Total LHIN population growth was 11.6% for the same period.

#### Population change, 2006 to 2016, by LHIN

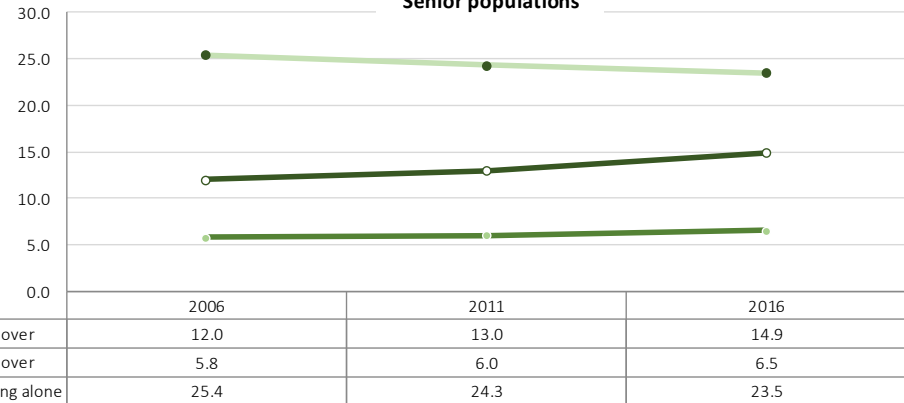


#### Change in unemployment rate, 2006 to 2016 = 15.6%



Percent population

#### Senior populations



## Births and Mortality

### Births and Maternal Age

- In FY 2016/17, Waterloo Wellington women experienced 8,578 pregnancies and 8,720 births. 95% of births took place in a hospital; the remaining 5% were in the home, birth centre or other (including nursing stations, births outside of Ontario and other Ontario locations).
- In 2016, the crude birth rate (per 1,000) population in **Waterloo Wellington** was 10.5, the 2<sup>nd</sup> highest crude birth rate in the province.
- The fertility rate per 1,000 Waterloo Wellington females of reproductive age (15 to 49) was 43.2.
  - By sub-region, **Wellington** sub-region had the 8<sup>th</sup> highest fertility rate among 15 to 49 year olds in the province (51.1).
- For teenagers (15 to 19), the fertility rate per 1,000 **Waterloo Wellington** females was 5.3.
- In FY2016, 1.5% of women who gave birth were under 20 years of age. 20.0% of women were 35 years or older.
- In 2016, overall mean age of mothers giving birth in this LHIN was 30.2.
- In 2016, the stillbirth rate per 1,000 live births in **Waterloo Wellington** was 8.2.

### Multiple Births

- The multiple live birth rate per 100 live births in 2016 was 3.7, the 2<sup>nd</sup> highest rate in the province.

### Pre-Term Births

- In 2016, the pre-term birth rate per 100 live births was 7.4, the 2<sup>nd</sup> lowest in the province.

### Size for Gestational Age and Birth Weight

- In 2016, the pre-term birth rate per 100 live births was 7.4, the 2<sup>nd</sup> lowest in the province.
- The low birth weight rate per 100 live births was 6.0.
  - By sub-region, **Wellington** had the 6<sup>th</sup> lowest low birth weight rate in the province (4.3).
- In 2016, the small for gestational age rate per 100 live births was 8.0.
  - By sub-region, **Wellington** had the 2<sup>nd</sup> lowest small for gestational age rate in the province (5.2).
- In 2016, the large for gestational age rate per 100 live births was 11.3.

### Attendants, Assisted Delivery & Epidural Anaesthesia during Labour

- In Waterloo Wellington, 72.5% of hospital births were attended by an obstetrician. 11.8% were attended by a midwife, the 2<sup>nd</sup> highest proportion in the province.
- Among vaginal deliveries, the overall assisted delivery rate for **Waterloo Wellington** women was 10.6. The assisted delivery rate using vacuum extraction was 5.0. In **Waterloo Wellington**, the assisted delivery rate using forceps (4.9) was the 2<sup>nd</sup> highest in the province.
- The epidural rate for vaginal deliveries was 56.7. Epidural rate for all deliveries was 48.9.

### Caesarean Deliveries

- In FY 2016/17, the total Caesarean section rate per 100 deliveries was 28.0.
- The rate of primary Caesarean section rate (the mother's first Caesarean, regardless if she had given birth vaginally before) was 18.8 per 100 deliveries. Primary Caesarean section rate was lower in women under 35 years of age (18.0) compared to those 35 and over (22.4).
- The rate of repeat Caesarean sections in Waterloo Wellington was 80.0 per 100 deliveries.

### Breastfeeding

- Waterloo Wellington LHIN had the **highest** rate of exclusive breastfeeding at discharge among term live births in the province (77.7%).

## Births and Maternal Outcomes, Ontario

	Waterloo Wellington	Ontario	Comments <sup>†</sup>
Total births in Ontario, LHIN of maternal residence	8,720	141,163	
Hospital	8,242	136,505	
Home	438	3,813	
Birth Centre	<6	572	
Crude birth rate (per 1,000 population)	10.5	9.8	2 <sup>nd</sup> highest
Stillbirth rate (per 1,000 live births)	8.2	8.1	
Multiple live birth rate (per 100 live births)	3.7	3.3	2 <sup>nd</sup> highest
Rate of preterm birth (<37 weeks) (%) <sup>*</sup>	7.3%	8.2%	2 <sup>nd</sup> lowest
Preterm birth rate (per 100 live births) <sup>**</sup>	7.4	8.1	2 <sup>nd</sup> lowest
Total pregnancies in Ontario, LHIN of maternal residence	8,578	138,781	
Fertility rate (per 1,000 females of reproductive age)			
Overall rate (15 to 49)	43.2	41.2	
Teen rate (15 to 19)	5.3	6.3	
Distribution of maternal age (%)			
<20	1.5%	1.9%	
≥ 35	20.0%	23.8%	
Mean age of mother at birth of first infant	28.8	29.3	
Overall mean age of mother at birth	30.2	30.7	
Rate of Caesarean delivery (%), LHIN of hospital	27.5%	28.4%	
Total Caesarean Section Rate	28.0	28.4	
Primary Caesarean Section Rate, LHIN of patient	18.8	19.0	
Primary C-Section Rate (< 35 years)	18.0	17.9	
Primary C-Section Rate (≥ 35 years)	22.4	22.9	
Repeat Caesarean Section Rate	80.0	82.7	
Epidural Rate for Vaginal Deliveries	56.7	60.3	
Epidural Rate for All Deliveries	48.9	51.0	
Assisted Delivery Rate Among Vaginal Deliveries			
Overall	10.6	12.3	
Vacuum Extraction	5.0	9.1	
Forceps	4.9	2.8	
Healthcare provider who caught the baby for hospital births (%), LHIN of hospital			
Obstetrician	72.5%	78.8%	
Family doctor	7.3%	7.4%	
Midwife	11.8%	7.4%	2 <sup>nd</sup> highest
Other	8.4%	6.4%	
Low birth weight rate (per 100 live births)	6.0	6.8	3 <sup>rd</sup> lowest
Fullterm low birth weight rate (per 100 live births)	1.7	2.0	3 <sup>rd</sup> lowest
Births small for gestational age (%) <sup>*</sup>	8.7%	9.7%	
Small for gestational age (per 100 live births) <sup>**</sup>	8.0	9.6	
Births large for gestational age (%) <sup>*</sup>	11.4%	9.7%	
Large for gestational age (per 100 live births) <sup>**</sup>	11.3	9.8	
Rate of exclusive breastfeeding among term live hospital births (%), LHIN of maternal residence	77.7%	62.8%	Highest

<sup>†</sup> Ranking in the province compared to other LHINs.

<sup>\*</sup> As reported by BORN Ontario

<sup>\*\*</sup> As reported by Public Health Ontario

### Maternal smoking, alcohol and drug use during pregnancy among all women who live in Ontario and who had a live birth or stillbirth (LHIN of maternal residence), 2016/17 (BORN)

- In Waterloo Wellington, the rate of women who self-identified as non-smokers at first prenatal visit was 91.4%,. At the time of labour, 93.0% were non-smokers.
  - The prevalence of smoking 1-10 cigarettes and 10+ cigarettes at the first prenatal visit was 5.0% and 3.4%, respectively.
- 2.7% of the women reported drinking alcohol, and 1.8% reported using drugs during pregnancy.

	Waterloo Wellington	Ontario	Comments <sup>†</sup>
<b>Maternal smoking at first prenatal visit (%) LHIN of maternal residence<sup>‡</sup></b>			
% women who reported smoking (0) cigarettes/day	91.4%	90.7%	
% women who reported smoking (1 – 10) cigarettes/day	5.0%	5.5%	
% women who reported smoking (10+) cigarettes/day	3.4%	3.2%	
<b>Maternal smoking at time of labour (%)</b>			
% women who reported smoking (0) cigarettes/day	93.0%	92.5%	
% women who reported smoking (1 – 10) cigarettes/day	4.0%	4.6%	
% women who reported smoking (10+) cigarettes/day	2.9%	2.6%	
Alcohol consumption during pregnancy (%)	2.7%	2.6%	
Drug and substance exposure during pregnancy (%)	1.8%	2.3%	

<sup>†</sup>Ranking in the province compared to other LHINs.

### Life Expectancy

- Life expectancy at birth for both males and females in 2012-2014 was 82 years. By sex, life expectancy at birth for males in Waterloo Wellington LHIN was 80 years, and 84 years for females.
- Life expectancy at age 65 for both sexes from 2012-2014 was 21 years. By sex, life expectancy at age 65 for males in Waterloo Wellington was 19 years, and 22 years for females.

	Waterloo Wellington LHIN	Ontario	Rank among LHINs <sup>†</sup>
<b>Life Expectancy</b>			
Life expectancy at birth- Both Sexes 2012-14	82.1	82.3	
Life expectancy at birth- Male 2012-14	80.1	80.2	
Life expectancy at birth- Female 2012-14	84.0	84.3	
Life expectancy at age 65- Both Sexes 2012-14	20.6	20.9	
Life expectancy at age 65- Male 2012-14	19.1	19.3	
Life expectancy at age 65- Female 2012-14	22.0	22.2	

<sup>†</sup>Ranking in the province compared to other LHINs (highest and lowest 2).

### Mortality and Potential Years of Life Lost

- In 2012, 4,811 Waterloo Wellington LHIN residents died.
- The all-cause mortality rate for LHIN residents was 637 per 100, 000 population in 2012.
- Ischaemic heart disease was the leading cause of death in Waterloo Wellington LHIN, followed by Dementia and Alzheimer's disease and cancer of lung and bronchus.
- 29,819 years of potential life were lost by LHIN residents in 2012.
- The LHIN's PYLL (potential years of life lost) rate for 2012 was 4,200 per 100,000 population aged less than 75. Since 2007, the PYLL rate increased by 4.1% for Waterloo Wellington LHIN residents.



- The leading causes of potential years of life lost in 2012 were Ischaemic heart disease, intentional self-harm and Cancer of lung and bronchus

### Mortality, Potential Years of Life Lost

	Waterloo Wellington	Ontario	Rank among LHINs†	Range across WW sub- regions (2010-2012)
<b>Mortality, 2012</b>				
Total deaths, 2012	4,811	90,525		746-2,342
% change in total deaths (2007-2012)	8.0%	4.1%		NA
All-cause mortality rate per 100,000 population	637.4	675		607.3-780.6
% change in all-cause mortality rate (2007-2012)	3.5%	-0.7%		NA
% of deaths that were premature (age < 75)	36.9%	37.3%		35.3%-40.5%
<b>Top 10 leading causes of death, 2012 (rates per 100,000 population)<sup>3</sup></b>				
Ischaemic heart disease	95.4	98.0		88.4-121.9
Dementia & Alzheimer's disease	59.5	55.6		50.8-66.3
Cancer of lungs & bronchus	45.4	50.3		38.9-51.9
Cerebrovascular diseases	36.2	36.6		38.0-60.2
Chronic lower respiratory diseases	28.1	28.4		23.1-35.0
Cancer of colon, rectum, anus	22.7	23.4		20.2-26.7
Diabetes	21.2	20.7		20.2-28.6
Cancer of lymph, blood & related	19.3	20.0		20.1-25.1
Falls	15.5	17.4		13.2-18.3
Cancer of breast	15.1	14.3		NA
<b>Potential years of life lost (PYLL), 2012</b>				
Total PYLL, 2012	29,819	551,256		4,799-13,677
% change in PYLL (2007-2012)	8.8%	-0.6%		NA
PYLL rate per 100,000 population (age < 75)	4,200	4,405		4,000.3-4,777.6
% change in PYLL rate (2007-2012)	4.1%	-5.0%		NA
<b>Top 10 leading causes of PYLL, 2012 (rates per 100,000 population, age &lt; 75)<sup>4</sup></b>				
Ischaemic heart disease	384.3	406.8		372-1,218
Cancer of lung & bronchus	298.9	322.6		261-878
Intentional self-harm	378.0	284.7		209-1,206
Perinatal conditions	253.5	253.3		175-650
Accidental poisoning	214.2	190.6		47-611
Transport accidents	188.6	171.8		148-605
Cancer of lymph, blood & related	121.1	149.1		NA
Congenital malformations, deformations,	117.6	149.0		129-342
Cancer of breast	137.2	147.0		114-169
Cancer of colon, rectum, anus	151.4	141.3		136-422

†Ranking in the province, compared to other LHINs.

<sup>3</sup> Mean rate from 2010-2012

<sup>4</sup> Mean rate from 2010-2012

## General Health, Risk Factors, and Prevention

### General Health

- In 2015-16, 63% of Waterloo Wellington LHIN residents said they had very good or excellent health.
  - Very good or excellent health was significantly more prevalent in **Wellington** sub-region compared to Ontario overall.
- 70% reported very good or excellent mental health. The proportion declined 7% between 2005 and 2014<sup>5</sup>. It also declined in Ontario overall.
- 23% of Waterloo Wellington residents reported that most days were “quite a bit” or “extremely” stressful.

### Prevention

- 91% of Waterloo Wellington residents reported having a regular medical doctor.
  - Compared to Ontario, the proportion of people with a regular medical doctor is **significantly higher** in the sub-regions of **Cambridge-North Dumfries**, **Wellington**, and **Guelph-Puslinch**.
- 28% of residents of Waterloo Wellington LHIN indicated that they received a flu shot in the year preceding the survey, **significantly lower** than the Ontario rate of 33%.

### Risk Factors

- 17% of Waterloo Wellington residents reported daily or occasional smoking in 2015-16. Compared to Ontario, **significantly higher** smoking rates are found in the **Cambridge-North Dumfries** sub-region.
- 19% of Waterloo Wellington residents reported heavy drinking. Heavy drinking is defined as having consumed 5 or more drinks for males and 4 or more drinks for women on at least one occasion at least once a month during the past year.
- Two-thirds (66%) of adult residents of Waterloo Wellington LHIN were either overweight or obese, a rate that is **significantly higher** than Ontario.
- 41% of Waterloo Wellington LHIN residents were physically inactive—now defined as less than 150 minutes of moderate to vigorous activity per week. In terms of sub-regions, rates of inactivity are **significantly lower** than Ontario in **Guelph-Puslinch** and **Wellington**.
- In 2015-16 Compared to Ontario (72%), the proportion (66%) of Waterloo Wellington LHIN residents consuming fewer than 5 servings of fruits or vegetables daily is **significantly lower** which is an indication of healthier eating habits.
  - At the sub-region level, it should be noted that from 2011 to 2014 indicate there is no statistical difference in the proportion of Waterloo Wellington LHIN residents consuming fewer than 5 servings of fruits or vegetables daily from the rest of Ontario.

---

<sup>5</sup> 2005 to 2014 rates are not directly comparable with those from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

## General Health, Risk Factors, and Prevention; Waterloo Wellington LHIN

	Waterloo Wellington LHIN 2015-16	Ontario (2015-16)	Rank among LHINs† (2015-16)	Range across Waterloo Wellington sub-regions (2011-14)*
<b>General Health</b>				
General health, % of the population age 12+ with...				
Very good or excellent self-perceived health	63%	61%	3 <sup>rd</sup> highest	57-67%
Very good or excellent self-perceived mental health	70%	71%		68-76%
Days that are 'quite a bit' or 'extremely' stressful (age 15+)	23%	22%		
<b>Prevention</b>				
Use of Health Services and Preventive Care, % of the population age 12+ who...				
Have a regular medical doctor	91%	90%		91-97%
Have consulted with family doctor/general practitioner (past yr)	71%	74%	2 <sup>nd</sup> lowest	
Received flu shot in the past year	28% <sup>-1</sup>	33%	3 <sup>rd</sup> lowest	
<b>Risk Factors</b>				
Risk factors, % of the population age 12+ who...				
Are daily or occasional smokers	17%	17%		16-25%
Are exposed to second-hand smoke in the home	6.7%	6.9%		
Are heavy drinkers	19%	18%		
Are overweight or obese (age 18+)	66% <sup>1</sup>	61%		48-60%
Are overweight (age 18+)	37%	35%	3 <sup>rd</sup> highest	31-36%
Are obese (age 18+)	30%	26%		15-24%
Are physically inactive	41%	42%		36-49%
Consume < 5 servings of fruits/vegetables daily	66% <sup>-1</sup>	72%	Lowest	56-63%

\*2011-2014 sub-region rates are not directly comparable with LHIN and Ontario rates from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

†Top or bottom 3 ranking in the province, compared to other LHINs. Interpret with caution, rank based on point estimate, which may or may not be significantly different from Ontario. See significance flags for each measure below.<sup>1</sup> LHIN is **significantly higher** than Ontario

<sup>-1</sup> LHIN is **significantly lower** than Ontario

<sup>c</sup> Estimates with high sampling variability (CV between 16.6 -33.3) must be used with caution.

## Chronic Conditions

### Prevalence, mortality, hospital separations and hospital days of stay for selected chronic conditions

- 39.1% of Waterloo Wellington residents (aged 12+) reported having a one or more chronic conditions with 15.5% having two or more chronic conditions.
- Chronic conditions with the highest or lowest prevalence rates compared to other LHINs were as follows:  
Suffer from effects of a stroke - **Lowest**
- The mean health care cost per user for Waterloo Wellington residents in 2015/16 was \$2,450 (\$2,750 for Ontario).
- 4.6% of the patients were complex (4+ conditions), 5.8% for Ontario. The Waterloo Wellington LHIN was among the 3 LHINs with the lowest proportion of complex patients.
- The mean healthcare cost of a complex patient was \$22,550 compared to \$22,050 for Ontario.
- 4.6% of the patients were high cost user patients, 5.0% for Ontario.
- The mean healthcare cost per high cost user was \$35,650 compared to \$37,700 for Ontario. Waterloo Wellington LHIN was among the 3 LHINs with the lowest mean cost per high cost user.
- The hospitalization rate (per 100,000 population) for hypertension in Waterloo Wellington LHIN was 13 compared to 18 for Ontario. Waterloo Wellington LHIN among the 3 LHINs with the lowest rates.

### Chronic Conditions, Complex Patients

Condition	Waterloo Wellington	Ontario	Comment
<b>Self-reported prevalence (2015-16), rate per 100, age 12+</b>			
Arthritis	20.3	20.6	
Asthma	9	8.7	
Cancer	1.9 <sup>C</sup>	1.3	
Chronic Obstructive Pulmonary Disease (COPD) (age 35+)	3.8 <sup>C</sup>	4.0	
Diabetes	6.3	7.4	
High blood pressure	17.2	18.2	
Heart disease	4.7	4.6	
Suffer from effects of stroke	0.7 <sup>D</sup>	1.3	Lowest
Have a chronic condition	39.1	39.6	
Have multiple chronic conditions <sup>1</sup>	15.5	16.2	

C: 0.15<CV<=0.25 Marginal (Use with caution-high sampling variability)

D: 0.25<CV<=0.35 Marginal (Use with caution-high sampling variability)

1 - Of the selected conditions on this list

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>			
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	31.7	34.3	
Cardiovascular disease	888.0	916.9	
Cerebrovascular disease	142.7	133.2	
COPD	168.5	171.8	
Diabetes	102.5	100.2	
Hypertension	13.2	18.0	
Ischemic heart disease	291.6	314.8	
Lower respiratory disease	203.9	208.9	
Respiratory disease	600.4	599.7	
Stroke	122.8	112.5	

<b>Complex Patients and high cost users, 2015/16</b>			
Mean health care cost per user \$	\$ 2,450	\$ 2,750	
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$ 22,550	\$ 22,050	
# of patients that are complex	28,835	680,115	
% of all patients (health care users) that are complex	4.6%	5.8%	
<b>High cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$ 35,650	\$ 37,700	
# of patients that are high cost users	28,920	581,670	
% of patients that are high cost users	4.6%	5.0%	

### GUELPH-PUSLINCH SUB-REGION (301)

- The prevalence rate (per 100) for the population with high blood pressure was 14 (Ontario - 18.1). **Guelph-Puslinch** sub-region's rate was **significantly lower** than Ontario.
- The prevalence rate (per 100) for the population with heart disease was 3.3 (Ontario - 5). **Guelph-Puslinch** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The mean health care cost per user in **Guelph-Puslinch** sub-region was \$2,450 (Ontario - \$2,750).
- 4.9% of patients from **Guelph-Puslinch** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Guelph-Puslinch** sub-region was \$22,250 (Ontario - \$22,050).
- 4.7% of patients from **Guelph-Puslinch** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Guelph-Puslinch** sub-region was \$35,350 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Conditional	Guelph-Puslinch	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	14.5	17.3	58
Asthma	9.2	7.8	21
Diabetes	6.7	6.8	41
High blood pressure	14.0	18.1	69
Heart disease	3.3	5.0	63

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
AGE STANDARDIZED rate per 100,000			
Asthma	51.3	34.3	10
Cardiovascular disease	1,029.8	916.9	32
Cerebrovascular disease	140.4	133.2	42
COPD	232.3	171.8	23
Diabetes	93.9	100.2	50
Hypertension	19.2	18.0	27
Ischemic heart disease	338.5	314.8	41
Lower respiratory disease	289.3	208.9	21
Respiratory disease	767.6	599.7	19
Stroke	122.7	112.5	36

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,450	\$ 2,750	59
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$22,250	\$ 22,050	35.5
# of patients that are complex	5,705	680,115	
% of all patients (health care users) that are complex	4.9%	5.8%	59
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$35,350	\$ 37,700	56
# of patients that are high cost users	5,395	581,670	
% of patients that are high cost users	4.7%	5.0%	54

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## CAMBRIDGE-NORTH DUMFRIES SUB-REGION (302)

- The prevalence rate (per 100) for the population with high blood pressure was 14.1 (Ontario - 18.1). **Cambridge-North Dumfries** sub-region's rate was **significantly lower** than Ontario.
- The mean health care cost per user in **Cambridge-North Dumfries** sub-region was \$2,550 (Ontario - \$2,750).
- 5.2% of patients from **Cambridge-North Dumfries** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Cambridge-North Dumfries** sub-region was \$21,400 (Ontario - \$22,050).
- 4.8% of patients from **Cambridge-North Dumfries** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Cambridge-North Dumfries** sub-region was \$35,100 (Ontario - \$37,700).



## Chronic Conditions, Complex Patients

Conditional	Cambridge-North Dumfries	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	17.5	17.3	42
Asthma	8.9	7.8	23
Diabetes	6.2	6.8	46
High blood pressure	14.1	18.1	68
Heart disease	4.7	5.0	48

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	37.2	34.3
Cardiovascular disease	972.1	916.9
Cerebrovascular disease	122.8	133.2
COPD	233.6	171.8
Diabetes	119.7	100.2
Hypertension	14.9	18.0
Ischemic heart disease	343.4	314.8
Lower respiratory disease	272.5	208.9
Respiratory disease	786.8	599.7
Stroke	106.1	112.5

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$2,550	\$ 2,750
Complex Patients (4+ conditions)		
Mean health care cost per complex patient \$	\$21,400	\$ 22,050
# of patients that are complex	6,275	680,115
% of all patients (health care users) that are complex	5.2%	5.8%
High cost users (Top 5%) #		
Mean health care cost per high cost user \$	\$35,100	\$ 37,700
# of patients that are high cost users	5,785	581,670
% of patients that are high cost users	4.8%	5.0%

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

### KITCHENER-WATERLOO-WILMOT-WELLESLEY-WOOLWICH SUB-REGION (303)

- The prevalence rate (per 100) for the population with high blood pressure was 15.3 (Ontario - 18.1). **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** sub-region's rate was **significantly lower** than Ontario.
- The mean health care cost per user in **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** sub-region was \$2,350 (Ontario - \$2,750).
- 4.2% of patients from **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** sub-region were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the lowest percentage of Complex patients.
- The mean health care cost per complex patient in **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** sub-region was \$23,300 (Ontario - \$22,050).
- 4.3% of patients from **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** sub-region was \$36,150 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Kitchener-Waterloo- Wilmot-Wellesley- Woolwich	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	15.1	17.3	55
Asthma	7.3	7.8	48
Diabetes	8.2	6.8	20
High blood pressure	15.3	18.1	60
Heart disease	4.7	5.0	46

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
AGE STANDARDIZED rate per 100,000			
Asthma	24.5	34.3	62.5
Cardiovascular disease	787.0	916.9	64
Cerebrovascular disease	144.8	133.2	37
COPD	124.1	171.8	60
Diabetes	101.0	100.2	42
Hypertension	11.3	18.0	62.5
Ischemic heart disease	239.2	314.8	65
Lower respiratory disease	151.9	208.9	63
Respiratory disease	488.4	599.7	67
Stroke	124.4	112.5	33

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,350	\$ 2,750	64
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$23,300	\$ 22,050	25
# of patients that are complex	13,265	680,115	
% of all patients (health care users) that are complex	4.2%	5.8%	70
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$36,150	\$ 37,700	42
# of patients that are high cost users	13,825	581,670	
% of patients that are high cost users	4.3%	5.0%	61

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

### WELLINGTON SUB-REGION (304)

- The age standardized rate (per 100,000) for hospitalization for stroke was 147.4 (Ontario - 112.5). **Wellington** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **Wellington** sub-region was \$2,700 (Ontario - \$2,750).
- 4.9% of patients from **Wellington** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Wellington** sub-region was \$22,350 (Ontario - \$22,050).
- 5.3% of patients from **Wellington** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Wellington** sub-region was \$35,050 (Ontario - \$37,700).

### Chronic Conditions, Complex Patients

Condition	Wellington	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	18.1	17.3	41
Asthma	8.7	7.8	28
Diabetes	8.4	6.8	18
High blood pressure	19.2	18.1	39
Heart disease	6.2	5.0	22
Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.			

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
AGE STANDARDIZED rate per 100,000			
Asthma	24.6	34.3	61
Cardiovascular disease	1,058.1	916.9	27
Cerebrovascular disease	174.3	133.2	10
COPD	196.6	171.8	39
Diabetes	98.8	100.2	46
Hypertension	12.7	18.0	58
Ischemic heart disease	390.4	314.8	21.5
Lower respiratory disease	226.2	208.9	40
Respiratory disease	606.2	599.7	45
Stroke	147.4	112.5	8

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,700	\$ 2,750	49
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$22,350	\$ 22,050	34
# of patients that are complex	3,590	680,115	
% of all patients (health care users) that are complex	4.9%	5.8%	61
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$35,050	\$ 37,700	60
# of patients that are high cost users	3,920	581,670	
% of patients that are high cost users	5.3%	5.0%	40

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## Human Resources

### Physicians

- In 2016, there were approximately 1299 physicians in Waterloo Wellington LHIN
  - This represents the equivalent of approximately 166 physicians for every 100,000 persons in Waterloo Wellington LHIN.
  - The number of physicians in Waterloo Wellington LHIN increased by over 11% between 2013 and 2016 with similar growth occurring among both family medicine physicians and specialists.
- Between 2013 and 2016, there was an increase of approximately 73 family physicians in Waterloo Wellington LHIN
  - The majority of the increase in Waterloo Wellington LHIN occurred with 49 additional family physicians between 30-64 years of age.
- In 2016, approximately 10% of family physicians in Waterloo Wellington LHIN were at or beyond the age of retirement (65 years of age or older).

### Nurses

- In 2016, there were 6,854 total nurses in Waterloo Wellington LHIN.
- The total number of nurses increased by 2.9% between 2013 and 2016,
  - While there was a decrease in the number of Registered Nurses in Waterloo Wellington LHIN between 2013 and 2016, there were substantial increases in the number of Nurse Practitioners (43% increase) and Registered Practical Nurses (17% increase) during the same time period.
- In 2016, there were approximately 875 nurses for every 100,000 residents of Waterloo Wellington LHIN.

### Other Allied Health Professionals

- Between 2013 and 2016, the greatest growth in the number of allied health professionals in Waterloo Wellington LHIN was among pharmacists (an increase of 105 or about 19%) and midwives (an increase of 8 or approximately 13%).
- There was notable growth in the number of audiologists (increase of 3 or 10%), occupational therapists (increase of 21 or 8%) and opticians (increase of 9 or 7%) in Waterloo Wellington LHIN between 2013 and 2016.
- The number of psychologists in Waterloo Wellington LHIN also increased by 6 or 3.8% between 2013 and 2016.
- Speech-language pathologists in Waterloo Wellington LHIN experienced a 3.7% reduction in their raw numbers (5 fewer) and slightly higher reductions in their numbers per capita.

Waterloo Wellington LHIN					
Physicians	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Total Family Medicine Physicians</b>					
Number of family medicine physicians	664	688	711	737	11.0%
Rate per 100,000 population	87.1	89.7	91.9	94.1	8.1%
<b>Total Specialists</b>					
Number of specialists	505	524	546	562	11.3%
Rate per 100,000 population	66.2	68.3	70.6	71.8	8.4%
<b>Total Physicians</b>					
Number of total physicians	1169	1212	1257	1299	11.1%
Rate per 100,000 population	153.3	158.0	162.5	165.9	8.2%

Family Physicians, by age group - count					
Age <30	13			29	123.1%
Age 30-64	584			633	8.4%
Age 65-74	61			69	13.1%
Age 75+	6			6	0.0%
Grand Total	664			737	11.0%
Age 65+	67			75	11.9%

Family Physicians, by age group – percent					
Age <30	2.0%			3.9%	101.0%
Age 30-64	88.0%			85.9%	-2.3%
Age 65-74	9.2%			9.4%	1.9%
Age 75+	0.9%			0.8%	-9.9%
Age 65+	10.1%			10.2%	0.9%

Waterloo Wellington LHIN					
Nurses	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Registered Nurses</b>					
Number of RNs	4383	4307	4271	4149	-5.3%
Rate per 100,000 population	576.1	561.6	552.2	529.9	-8.0%
<b>Registered Practical Nurses</b>					
Number of RPN nurses	2151	2289	2431	2524	17.3%
Rate per 100,000 population	282.7	298.5	314.3	322.3	14.0%
<b>Nurse Practitioners</b>					
Number of NP nurses	127	138	156	181	42.5%
Rate per 100,000 population	16.7	18.0	20.2	23.1	38.5%
<b>Total Nurses</b>					
Total Nurse - Number of nurses	6661	6734	6858	6854	2.9%
Total Nurse - Rate per 100,000 population	875.5	878.1	886.6	875.3	0.0%

Waterloo Wellington LHIN					
Other Regulated Health Professionals	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Audiologists</b>					
Audiologist - Number	31	33	31	34	9.7%
Audiologist - Rate per 100,000 population	4.1	4.3	4.0	4.3	6.6%
<b>Midwives</b>					
Midwife - Number	64	67	63	72	12.5%
Midwife - Rate per 100,000 population	8.4	8.7	8.1	9.2	9.3%
<b>Occupational Therapists</b>					
Occupational Therapist - Number	255	245	259	276	8.2%
Occupational Therapist - Rate per 100,000 population	33.5	31.9	33.5	35.2	5.2%
<b>Opticians</b>					
Optician - Number	127	134	145	136	7.1%
Optician - Rate per 100,000 population	16.7	17.5	18.7	17.4	4.1%
<b>Optometrists</b>					
Optometrist - Number	192	195	189	192	0.0%
Optometrist - Rate per 100,000 population	25.2	25.4	24.4	24.5	-2.8%
<b>Pharmacists</b>					
Pharmacist - Number	551	600	638	656	19.1%
Pharmacist - Rate per 100,000 population	72.4	78.2	82.5	83.8	15.7%
<b>Psychologists</b>					
Psychologist - Number	158	156	161	164	3.8%
Psychologist - Rate per 100,000 population	20.8	20.3	20.8	20.9	0.9%
<b>Speech-Language Pathologists</b>					
Speech-Language Pathologist - Number	136	135	128	131	-3.7%
Speech-Language Pathologist - Rate per 100,000 population	17.9	17.6	16.5	16.7	-6.4%



## Primary Care

### Primary Care Enrolment

- Almost 625,000 Waterloo Wellington LHIN residents were enrolled with a PEM as of 2016/2017 and one-fifth (21%) of residents are enrolled with FFS practices.
- Of those enrolled with PEMs located in the LHIN, almost all (91%) were enrolled in a FHO. Of the 569,884 residents enrolled with a FHO, 265,215 (47%) were part of a FHT.
- Across the LHIN, there were 32 practices with 538 physicians, with almost 400 physicians in 30 practices associated with FHOs.

### Selected Measures from the Health Care Experience Survey

#### Self-reported access to, and satisfaction with, primary care in 2017

	Ontario (2017)	LHIN (2017)	Range Across WW sub-regions (2014-2017)
Percentage who are satisfied with health care in their community	87%	88%	82% to 94%
Percentage with primary care providers (attached patients)	94%	95%	96% to 97%
Percentage who saw their primary care provider within the same day/next day when sick	40%	41%	43% to 49%
Percentage who went to ED for something that could have been treated by primary care provider	42%	51%	40% to 53%
Percentage who found it difficult to access care after-hours without going to an emergency department	53%	56%	51% to 60%
Percentage who went to walk-in clinic in past 12 months	30%	20% <sup>L</sup>	14% to 23%
Percentage who went to a walk in clinic for something that could have been treated by provider if they were available	92%	90%	87% to 88%*

*H=significantly higher than the province*

*L=significantly lower than the province*

*\*some sub-region estimates not reportable*

- Eighty-eight (88%) of the Waterloo Wellington LHIN population is satisfied with health care in their community.
  - **Cambridge-North Dumfries** is **significantly lower** than the provincial proportion at 82% and **Wellington** is **significantly higher** at 94%.
- In 2017, 95% of Waterloo Wellington adults (aged 16 and older) had a primary care provider
  - **Cambridge-North Dumfries** sub-region (97%) along with **Wellington** sub-region (97%) reported **significantly higher** attachment rates compared to the province.
- 41% of adults in the Waterloo Wellington LHIN were able to see a primary care provider on the same day or next day when they were sick, which has slightly decreased since 2013.
  - **Cambridge-North Dumfries** is **significantly lower** than the provincial proportion at 82% and **Wellington** is **significantly higher** at 94%.
- 56% percent of people found it difficult to access after-hours care without going to an ED, which decreased.
- In 2017, 20% of Waterloo Wellington LHIN adults had visited a walk-in clinic in the previous 12 months.

- All sub-regions reported percentages **significantly lower** than the provincial proportion: **Cambridge-North Dumfries** and **Wellington** sub-regions reported 14% respectively, and **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** sub-region reported the highest proportion in the LHIN at 23%.
- o Ninety percent (90%) of LHIN adults felt that they could have avoided a walk-in clinic visit if their primary care provider had been available.

## Community Care

- Waterloo Wellington LHIN ranks lowest in CSS\_Community Visits- Non Face to Face Visits per 1,000 population with 49 (province is 112).
- Waterloo Wellington LHIN ranks second lowest in CSS\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population with 8 (province is 28).
- Waterloo Wellington LHIN ranks lowest in CSS\_Resident Days (Assisted Living, Overnight stay care)Resident Days per 1,000 population with 82 (province is 366).
- Waterloo Wellington LHIN ranks second lowest in CSS\_Community Visits- Non Face to Face Visits per 1,000 population 75+ with 784 (province is 1,556).
- Waterloo Wellington LHIN ranks lowest in CSS\_Resident Days (Assisted Living, Overnight stay care)Resident Days per 1,000 population 75+ with 1,307 (province is 5,110).

## Mental Health

### Wait Time for Community Services

- Support within housing and case management had the longest median wait times among the community mental health (MH) services in Waterloo Wellington LHIN in 2017/18. With the exception of abuse services, Assertive Community Treatment teams and diversion and court support, Waterloo Wellington LHN had longer median wait times than the province for all community MH services in 2017/18.
- Among the substance abuse (SA) services provided in Waterloo Wellington LHIN, case management and residential treatment had the longest median wait times (120 and 77 days) in 2017/18. The median wait time in this LHIN was longer than the province for those two services.
- Only community treatment is provided in this LHIN for problem gambling. The median wait time for this treatment was the same as the provincial median wait of 10 days.

### Mental Health and Substance Abuse Emergency Department Visits

- In 2016/17, there were 14,300 unscheduled ED visits for Waterloo Wellington residents where the main problem was a MH/SA condition. There were 18,223 visits with a MH/SA condition in any of the diagnostic fields.
- Between 2013/14 and 2016/17, there was 34.1 % growth in visits with a MH/SA main problem diagnosis (higher than the province's value of 20.9%) and 26.9% growth in visits with a MH/SA condition in any diagnostic field (higher than the province's value of 21.1%).
- The MH/SA ED visit rate per 1,000 population was lower than the provincial value (18.3 compared to 19.2). Between 2013/14 and 2016/17 Waterloo Wellington residents had the **highest** growth in visit rate (main diagnosis) in the province at 30.5%.
- Visits with a MH/SA main problem diagnosis accounted for 4.7% of all ED visits for Waterloo Wellington LHIN residents.
- In 2016/17, there were 323 ED visits of Waterloo Wellington residents for opioid overdose. Of those, 40.2% were accidental – the third lowest proportion in the province.
- The crude rate of ED visits for opioid overdose in FY 2016/17 for Waterloo Wellington residents was 4.1, higher than the provincial value (3.5). Between 2013/14 and 2016/17, there was a 91.4% growth in the visit rate for opioid overdose for all Waterloo Wellington residents, the **highest** growth in the province.

### Unscheduled emergency department utilization for mental health and substance abuse conditions, Waterloo Wellington LHIN and Ontario residents, 2016/17

Measure	Waterloo Wellington LHIN	Ontario	% change 2013/14 – 2016/17	Comments
<b>LHIN of patient†</b>				
Main problem visits	14,300	268,514	34.1%	
% of total ED visits	4.7%	4.3%	-	
Any problem visits	18,223	338,260	26.9%	
% of total ED visits	6.0%	5.5%	-	
Main problem, visits per 1,000	18.3	19.2	30.5%	
Any problem, visits per 1,000	23.3	24.2	23.5%	
ED visits for opioid overdose	323	4,831	97.0%	
% of visits that were accidental	40.2%	50.1%	-	3 <sup>rd</sup> lowest
Crude rate per 10,000 population	4.1	3.5	91.4%	

†LHIN of patient results for Ontario exclude out-of-province residents

‡Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

### Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility

- In 2016/17, there were 14,067 unscheduled ED visits in Waterloo Wellington LHIN hospitals, where the main problem was a MH/SA condition. 3.5% of these visits were made by homeless individuals, the third highest proportion in the province.
- There were 4,437 admissions and 4,878 active cases who received treatment in adult designated MH units in Waterloo Wellington LHIN hospitals. There were 4,495 discharges from these units with the total days of discharge patients equal to 146,778 days. The mean length of stay in Waterloo Wellington LHIN MH units was 32.7 days, longer than all Ontarians (24.9 days). Residents from outside the LHIN accounted for 40.6% of the active cases treated in Waterloo Wellington LHIN.
- Between 2013/14 and 2016/17, active cases, admissions and discharges increased in Waterloo Wellington LHIN hospitals by 1.8%, 0.8% and 2.4%, respectively. The total days for discharged patients increased by 3.4%.
- Bipolar and depressive disorders (30.8%), short stay (20.2%), and substance use (18.9%) accounted for the largest proportions of active cases in Waterloo Wellington LHIN hospitals in 2016/17. Compared with the provincial values, Waterloo Wellington had larger proportions of active cases for bipolar and depressive disorders, substance use, personality disorders, feeding and eating disorders and all other disorders.
- There were 3,174 active cases, 2,923 admissions and 2,963 discharges for Waterloo Wellington LHIN residents from Ontario adult designated MH units. Mean length of stay for Waterloo Wellington LHIN residents was higher than the province (27.3 days compared to 24.8 days). 8.7% of Waterloo Wellington LHIN resident active cases received treatment in hospitals outside the LHIN. Compared with the provincial rates, Waterloo Wellington LHIN residents had lower rates of active cases, admissions, and discharges per 100,000 population age 15+.
- Active cases, admissions, discharges, total days and the associated rates decreased for Waterloo Wellington LHIN residents between 2013/14 and 2016/17.

### Adult designated mental health unit utilization, Waterloo Wellington LHIN hospitals and residents, 2016/17

Measure	Waterloo Wellington LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient</b>				
Active cases	2,923	64,523	0.2%	
Admissions	2,963	60,197	-0.1%	
Discharges	80,869	60,607	0.8%	
Total Days	27.3	1,504,690	-2.0%	
Mean Length of Stay	8.7%	24.8	-	
% Outflow Active Cases	488.9	-	-	
Active Cases per 100,000 (age 15+)	450.3	548.5	-3.0%	
Admission per 100,000 (age 15+)	456.4	511.7	-3.3%	
Discharges per 100,000 (age 15+)	2,923	515.2	-2.4%	
<b>SCIPP Categories - % of total active cases</b>				
Short Stay	28.4%	27.4%	-	
Schizophrenia and other psychotic disorders	18.8%	27.0%	-	
Neurocognitive disorders	3.9%	3.1%	-	
Bipolar and depressive disorders	26.7%	29.6%	-	
Personality disorders	3.5%	3.0%	-	
Feeding and eating disorders	0.5%	0.4%	-	
Substance Use disorders	7.1%	5.5%	-	
Other disorders	11.0%	4.0%	-	
<b>LHIN of hospital</b>				
Active cases	4,878	64,738	1.8%	
Admissions	4,437	60,383	0.8%	
Discharges	4,495	60,795	2.4%	
Total Days (discharged patients only)	146,778	1,512,754	3.4%	
Mean Length of Stay	32.7	24.9	-	
% Inflow Active Cases	40.6%	-	-	2 <sup>nd</sup> highest

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

## Surgery & Diagnostic Imaging

### Day Surgery and Cardiac Catheterization Utilization

#### Day Surgery and Cardiac Catheterization Visits

- In 2016/17, there were 67,970 day surgery and ambulatory cardiac catheterization visits to Waterloo Wellington LHIN hospitals. Residents from outside the LHIN accounted for 9.0% of the visits.
- Between 2013/14 and 2016/17, there was an increase of 6.6% in Waterloo Wellington LHIN hospital's day surgery and cardiac catheterization visits.
- There were 72,524 day surgery and ambulatory cardiac catheterization visits for Waterloo Wellington LHIN residents. There was an increase in both the number and rate of visits between 2013/14 and 2016/17.
- In 2016/17, 14.7% of these visits occurred in hospitals outside the LHIN.
- Waterloo Wellington LHIN residents had 92.6 day surgery and cardiac catheterization visits per 1,000 population. This rate was lower than the provincial rate of 93.9.

#### Day surgery and ambulatory cardiac catheterization visits, Waterloo Wellington LHIN and Ontario, 2016/17

Measure	LHIN	Comments	Ontario†	LHIN % change 2013-14 - 2016/17	Range within LHINs	Range within WW sub-regions
<b>LHIN of hospital</b>						
Visits	67,970		1,322,943	6.6%	27,727 - 158,077	
% Inflow visits	9.0%				0.7% - 58.4%	
<b>LHIN of patient</b>						
Total population	783,024		13,982,984	2.9%	235,148 - 1,893,948	
Visits	72,524		1,313,103	6.4%	28,401 - 157,644	9,965 - 35,588
% Outflow visits	14.7%				3.0% - 39.0%	10.6% - 31.7%
Visits per 1,000 population	92.6		93.9	3.6%	66.8 - 151.0	88.3 - 105.9
- age 0-17 years	22.4		22.2		13.9 - 38.4	
- age 18-44 years	47.7		46.5		34.8 - 85.5	
- age 45-64 years	127.5		125.3		93.9 - 183.0	
- age 65-79 years	246.7		239.9		176.5 - 318.4	
- age 80+ years	230.2		202.7		138.5 - 260.4	

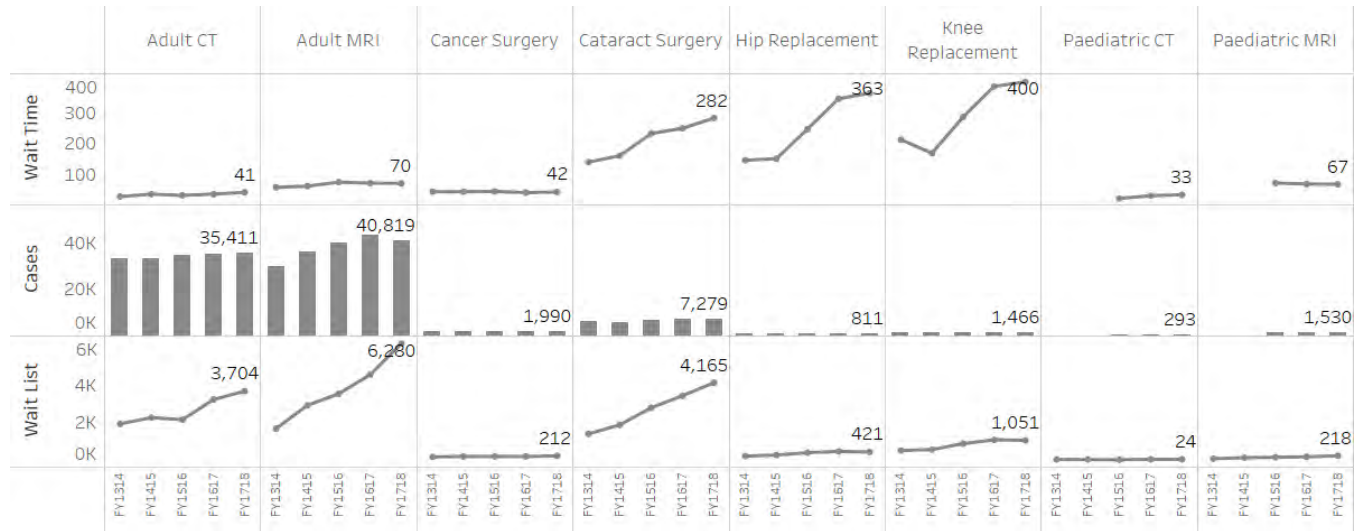
†LHIN of patient results for Ontario exclude out-of-province residents

## Surgical & Diagnostic Imaging Wait Times

### Waterloo Wellington LHIN Priority Procedures:

Wait 2 90<sup>th</sup> Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

#### LHIN of Treatment



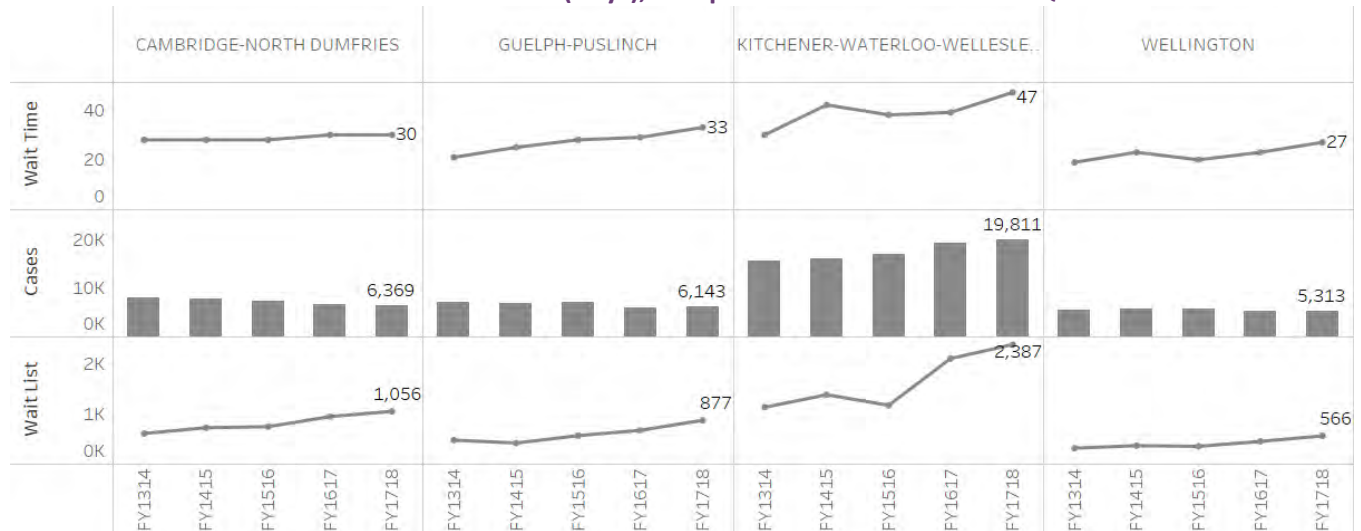


## Adult CT

- There were 35,411 adult CT scans completed in FY 2017-18; 599 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 41 days, 6 days longer than to the previous fiscal.
- In 2017/18, hospitals in the Waterloo Wellington LHIN had the 7<sup>th</sup> shortest wait time for adult CT scans. [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 3,704 patients; 444 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Adult CT (Days), Completed Cases and Wait List Queue Trends



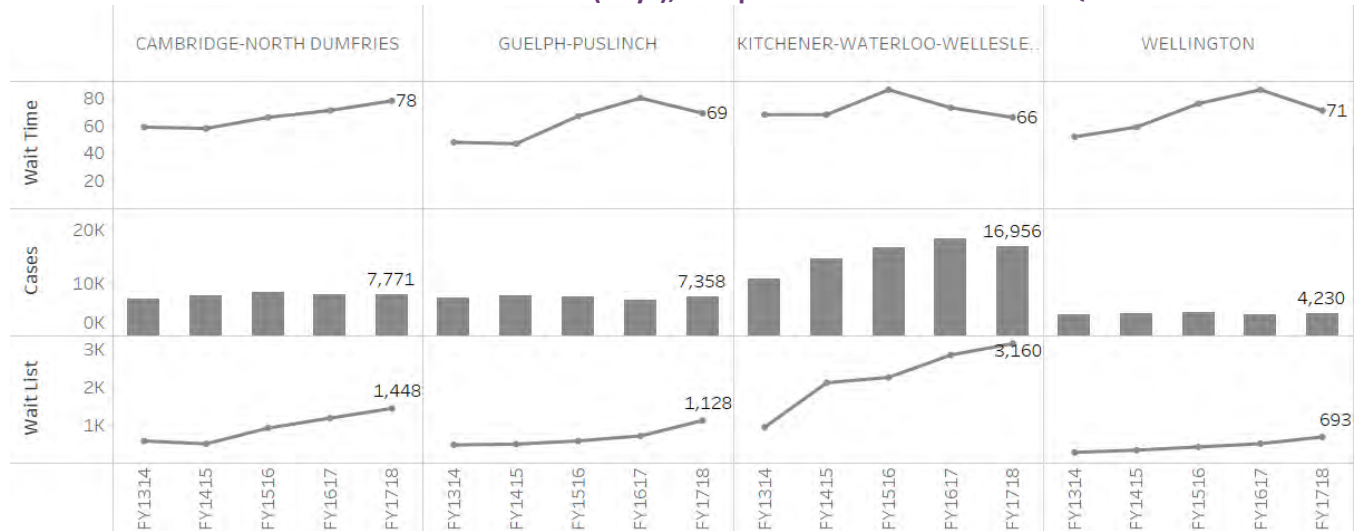
- Waterloo Wellington LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 27 days to 47 days.

## Adult MRI

- There were 40,819 adult MRI scans completed in FY 2017-18; 2,141 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 70 days, 1 day shorter than the previous fiscal.
- In 2017/18, hospitals in the Waterloo Wellington LHIN had the 4<sup>th</sup> shortest wait time for adult MRI scans. [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 6,280 patients; 1,688 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Adult MRI (Days), Completed Cases and Wait List Queue Trends



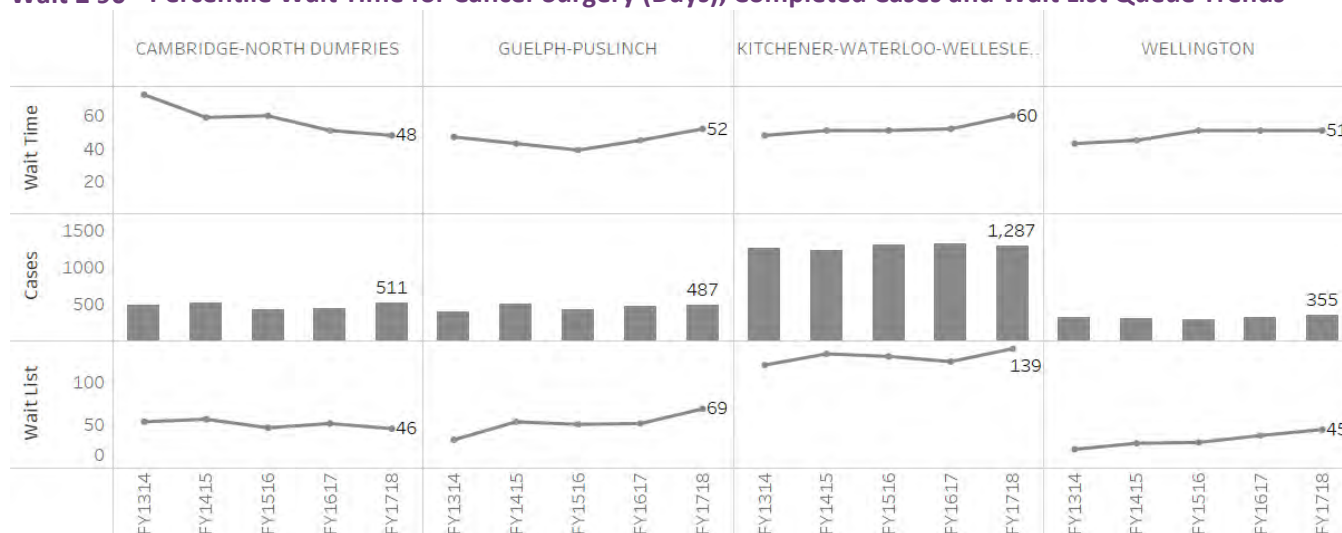
- Waterloo Wellington LHIN sub-region (of Patient Residence) variation in FY 2017-18: 66 days to 78 days.

## Cancer Surgery

- There were 1,990 cancer surgeries completed in FY 2017-18; 99 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 42 days, 2 days longer than the previous fiscal.
- In 2017/18, hospitals in the Waterloo Wellington LHIN had the 6<sup>th</sup> shortest wait time for cancer surgery.
- The wait list queue at the start of FY 2017-18 was 212 patients; 30 more queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90<sup>th</sup> Percentile Wait Time for Cancer Surgery (Days), Completed Cases and Wait List Queue Trends



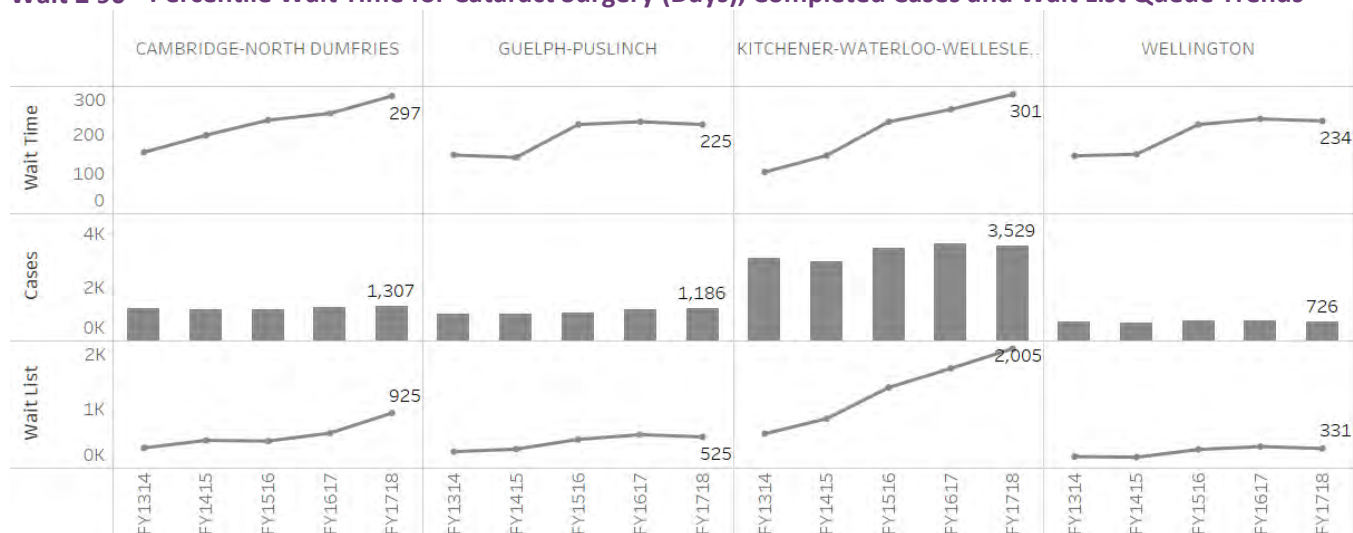
- Waterloo Wellington LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 48 days to 60 days.

### Cataract Surgery

- There were 7,279 cataract surgeries completed in FY 2017-18; 28 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 282 days, 33 days longer than the previous fiscal.
- In 2017/18, hospitals in the Waterloo Wellington LHIN had the 4<sup>th</sup> longest wait time for cataract surgery.
- The wait list queue at the start of FY 2017-18 was 4,165 patients; 704 more queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90<sup>th</sup> Percentile Wait Time for Cataract Surgery (Days), Completed Cases and Wait List Queue Trends



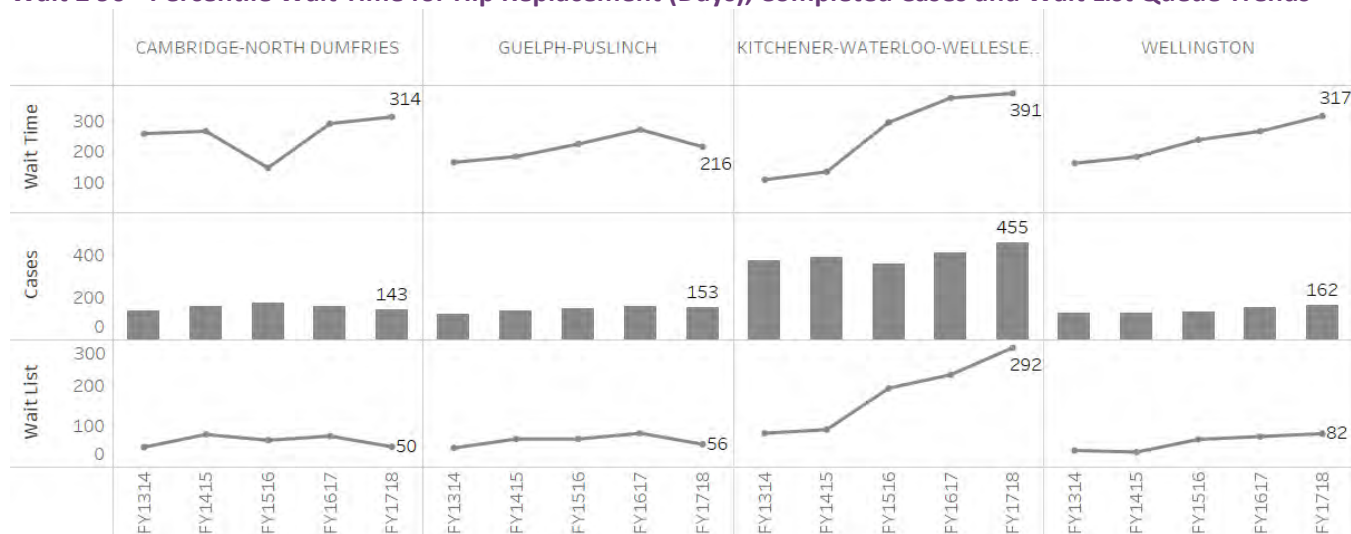
- Waterloo Wellington LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 225 days to 301 days.

## Hip Replacement

- There were 811 hip replacement surgeries completed in FY 2017-18; 30 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 363 days, 18 days longer than the previous fiscal.
- In 2017/18, hospitals in the Waterloo Wellington LHIN had the 2<sup>nd</sup> longest wait time for hip replacement surgery.
- The wait list queue at the start of FY 2017-18 was 421 patients; 33 fewer queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90<sup>th</sup> Percentile Wait Time for Hip Replacement (Days), Completed Cases and Wait List Queue Trends



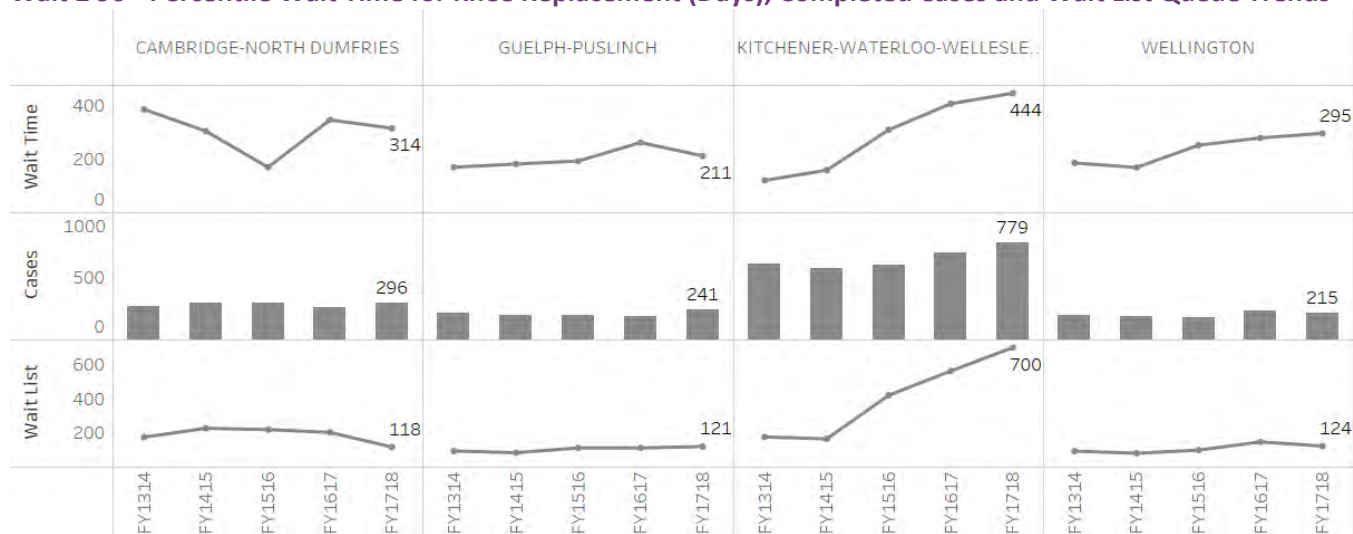
- Waterloo Wellington LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 216 days to 391 days.

## Knee Replacement

- There were 1,466 knee replacement surgeries completed in FY 2017-18; 68 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 400 days, 15 days longer than the previous fiscal.
- In 2017/18, hospitals in the Waterloo Wellington LHIN had the 2<sup>nd</sup> longest wait time for knee replacement surgery.
- The wait list queue at the start of FY 2017-18 was 1,051 patients; 28 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Knee Replacement (Days), Completed Cases and Wait List Queue Trends



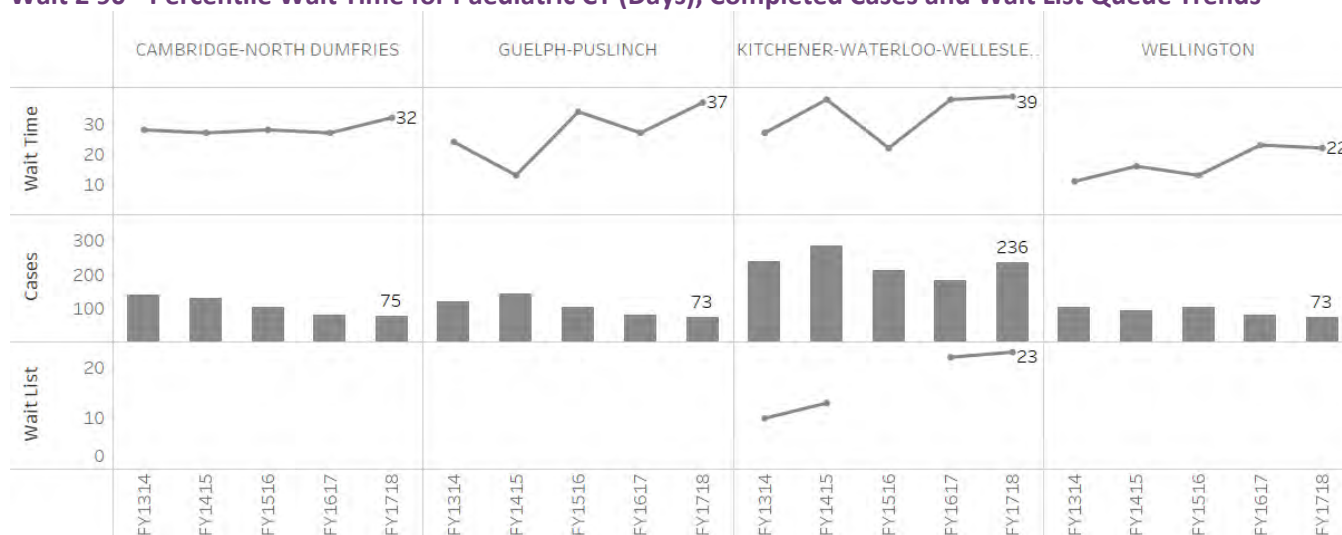
- Waterloo Wellington LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 211 days to 444 days.

### Paediatric CT

- There were 293 paediatric CT scans completed in FY 2017-18; similar to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 33 days, 3 days longer than the previous fiscal.
- In 2017/18, hospitals in the Waterloo Wellington LHIN had the 5<sup>th</sup> longest wait time for paediatric CT scans. [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 24 patients; 1 more than the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90<sup>th</sup> Percentile Wait Time for Paediatric CT (Days), Completed Cases and Wait List Queue Trends



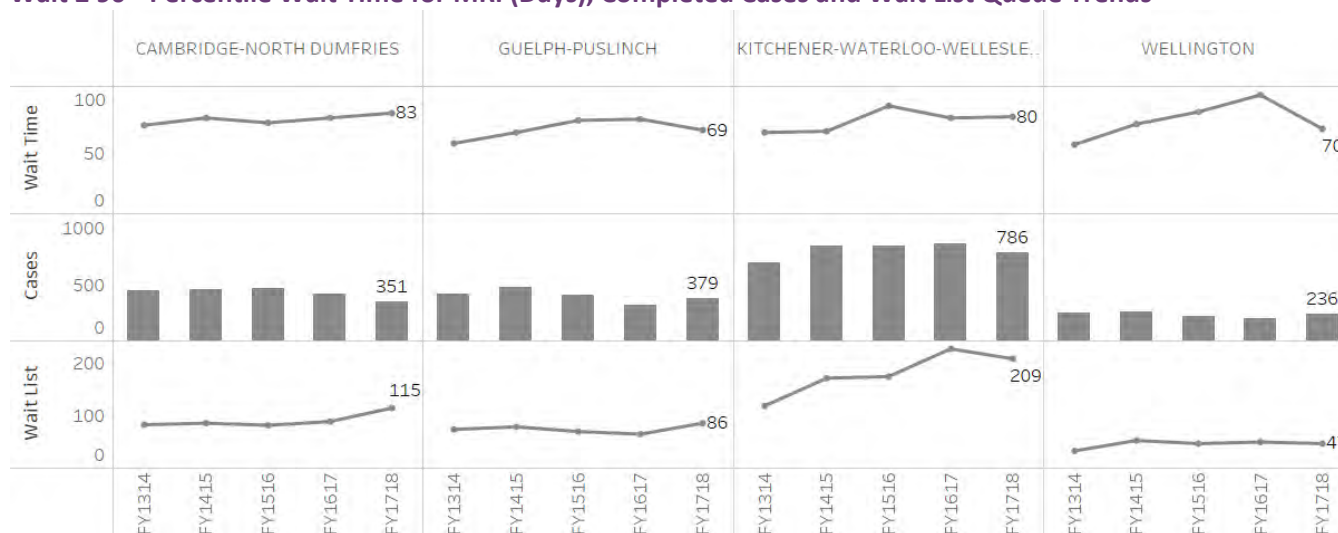
- Waterloo Wellington LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 22 days to 39 days.

### Paediatric MRI

- There were 1,530 paediatric MRI scans completed in FY 2017-18; 76 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 67 days, 1 day shorter than the previous fiscal.
- In 2017/18, hospitals in the Waterloo Wellington LHIN had the 3<sup>rd</sup> shortest wait time for paediatric MRI scans. [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 218 patients; 56 more than the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90<sup>th</sup> Percentile Wait Time for MRI (Days), Completed Cases and Wait List Queue Trends



- Waterloo Wellington LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 69 days to 83 days.



## Oncology and Dialysis

### Ambulatory Oncology Utilization

- In 2016/17, there were 60,648 ambulatory oncology visits to hospital(s) in Waterloo Wellington LHIN.
- Since 2014/15, visits in Ontario have increased by 9%. The number of visits to Waterloo Wellington LHIN hospitals increased by 10% and visits for Waterloo Wellington LHIN residents increased by 7%.
- Ambulatory oncology visits per 1,000 population for residents of Waterloo Wellington LHIN is 84.0 (Ontario - 75.7). The rate is one of the highest visit rates in the province.
  - In 2016/17, ambulatory oncology visits per 1,000 population for residents of **Cambridge-North Dumfries** sub-region is 127.2 (Ontario - 75.7). The rate is among the 8 highest visit rates in Ontario.
- In particular, visits from residents in age groups 18-44 years, 45-64 years, 65-79 years, and 80+ years were noted as among the highest rates compared to other LHINs.
  - **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** sub-region has the absolute largest number of ambulatory oncology visits in the Waterloo Wellington LHIN; however, **Cambridge-North Dumfries** sub-region has the highest visit rate in the province. Notably, visit rates across age groups 18 to 80+ years were among the 8 highest visit rates, compared to other sub-regions in Ontario, in their respective age groups.
- 16% of ambulatory oncology visits by Waterloo Wellington LHIN residents were to hospitals outside of Waterloo Wellington LHIN.
- 8% of ambulatory oncology visits to Waterloo Wellington LHIN hospitals were by non- Waterloo Wellington LHIN residents.

Ambulatory Oncology	Waterloo Wellington	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory oncology visits	60,648	1,059,358		Increase	
% Inflow oncology visits	8.3%				
<b>LHIN of patient</b>					
Ambulatory oncology visits	65,768	1,057,888		Increase	7,563 -30,001
% Outflow oncology visits	15.5%				
Visits per 1,000 population	84.0	75.7	4 <sup>th</sup> highest	Increase	68.0 -127.2
Visit rate/1,000 population age 0-17 years	4.4	5.0			2.9 -6.5
Visit rate/1,000 population age 18-44 years	18.3	15.9	Highest		15.2 -26.2
Visit rate/1,000 population age 45-64 years	121.5	106.7	3 <sup>rd</sup> highest		93.9 -196.0
Visit rate/1,000 population age 65-79 years	312.4	255.4	2 <sup>nd</sup> highest		259.7 -455.7
Visit rate/1,000 population age 80+ years	246.9	191.6	2 <sup>nd</sup> highest		180.6 -421.3

Ambulatory Oncology - Sub-Region	Waterloo Wellington	Guelph-Puslinch	Cambridge-North Dumfries	Kitchener-Waterloo-Wilmot-Wellesley-Woolwich	Wellington
----------------------------------	---------------------	-----------------	--------------------------	--	------------

LHIN of hospital					
Ambulatory oncology visits	60,648				
% Inflow oncology visits	8.3%				
LHIN of patient					
Ambulatory oncology visits~	65,768	9,526	18,678	30,001	7,563
% Outflow oncology visits	15.5%	23.5%	12.7%	10.5%	32.1%
Visits per 1,000 population	84.0	68.0	127.2	74.6	80.4
Visit rate/1,000 population age 0-17 years	4.4	5.8	5.7	2.9	6.5
Visit rate/1,000 population age 18-44 years	18.3	15.2	26.2	16.9	16.5
Visit rate/1,000 population age 45-64 years	121.5	93.9	196.0	107.9	101.6
Visit rate/1,000 population age 65-79 years	312.4	269.0	455.7	291.0	259.7
Visit rate/1,000 population age 80+ years	246.9	180.6	421.3	217.0	231.6

### Ambulatory Dialysis Utilization

- In 2016/17, there were 55,626 ambulatory dialysis visits to hospital(s) in Waterloo Wellington LHIN.
- Since 2014/15, visits in Ontario have increased by 3%. The number of visits to Waterloo Wellington LHIN hospitals increased by 1% and visits for Waterloo Wellington LHIN residents is relatively unchanged.
- The rate of ambulatory dialysis visits per 1,000 population for residents of Waterloo Wellington LHIN is 69.6 (Ontario - 90.4). The rate is among the one of the lowest in the province. Visit rates from residents in age groups 0-17 years, 18-44 years, and 45-64 years are among the lowest in the province. However, the visit rate for residents in age group 80+ years is one of the highest in the province.
  - Visit rates in **Wellington** for age groups 45 – 64 years and 80+ years (115.8) are among the 8 lowest visit rates in in Ontario. The variance in visits rates between the sub-regions in the LHIN is large as sub-regions **Cambridge-North Dumfries** (548.7) and **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** (629.4) have very high visit rates for age group 80+ years (Ontario – 426.7).
- 1.2% of ambulatory dialysis visits by Waterloo Wellington LHIN residents were to hospitals outside of Waterloo Wellington LHIN.
- 3% of ambulatory dialysis visits to Waterloo Wellington LHIN hospitals were by non- Waterloo Wellington LHIN residents.

*Note: Ambulatory dialysis visit volumes for residents in age group 0-17 are low to none across all sub-regions. Caution should be used when interpreting visit rates in this age group.*



Ambulatory Dialysis	Waterloo Wellington	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory dialysis visits	55,626	1,269,794	4 <sup>th</sup> lowest	Stable	
% Inflow dialysis visits	3.2%				
<b>LHIN of patient</b>					
Ambulatory dialysis visits	54,492	1,264,676		Stable	3,683 -32,671
% Outflow dialysis visits	1.2%				
Visits per 1,000 population	69.6	90.4	Lowest	Stable	39.1 -81.3
Visit rate/1,000 population age 0-17 years	0.0	1.2			0.0 -0.0
Visit rate/1,000 population age 18-44 years	18.3	21.8	4 <sup>th</sup> lowest		12.3 -21.9
Visit rate/1,000 population age 45-64 years	66.5	105.3	Lowest		42.9 -79.8
Visit rate/1,000 population age 65-79 years	246.3	285.3			135.7 -297.1
Visit rate/1,000 population age 80+ years	474.8	426.7	4 <sup>th</sup> highest		115.8 -629.4

Ambulatory Dialysis - Sub-Region	Waterloo Wellington	Guelph-Puslinch	Cambridge-North Dumfries	Kitchener-Waterloo-Wilmot-Wellesley-Woolwich	Wellington
<b>LHIN of hospital</b>					
Ambulatory dialysis visits	55,626				
% Inflow dialysis visits	3.2%				
<b>LHIN of patient</b>					
Ambulatory dialysis visits~	54,492	8,011	10,127	32,671	3,683
% Outflow dialysis visits	1.2%	1.2%	0.6%	0.4%	10.0%
Visits per 1,000 population	69.6	57.2	68.9	81.3	39.1
Visit rate/1,000 population age 0-17 years	0.0	0.0	0.0	0.0	0.0
Visit rate/1,000 population age 18-44 years	18.3	13.8	21.9	19.9	12.3
Visit rate/1,000 population age 45-64 years	66.5	79.8	60.1	70.5	42.9
Visit rate/1,000 population age 65-79 years	246.3	195.8	243.8	297.1	135.7
Visit rate/1,000 population age 80+ years	474.8	242.7	548.7	629.4	115.8

\*Ranking: Top or bottom 4 ranking in the province, compared to other LHINs.

^ Trend: "Increase/decrease" when there is a change more than 1%, otherwise, "stable"

~ There are some records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables with the LHIN name but as SR unassigned.

## Home Care

### Home Care Patient Referrals

- In 2017/18, there were 40,556 active home care patient referrals in the Waterloo Wellington LHIN.
  - Across Ontario's sub-regions, **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** had the fourth highest number of active patient referrals with 19,576.

### Active Patient Referrals 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across the sub-regions*
<b>Cambridge-North Dumfries</b>	6,766	6,786	7,335	
<b>Guelph-Puslinch</b>	6,807	7,219	7,919	
<b>Kitchener Waterloo Wellesley Woolwich Wilmot</b>	17,536	17,940	19,576	4 <sup>th</sup> highest
<b>Wellington</b>	4,058	4,292	4,685	
<b>Out of LHIN Region</b>	486	517	544	
<b>Unknown Region</b>	1,305	857	497	
<b>WW Total</b>	36,958	37,611	40,556	

\*Rank based on 2017/18 active patient referrals

### Home Care Referral Rate

- In 2017/18, Waterloo Wellington's utilization rate was higher than Ontario's (51.0 compared to 48.2).
  - Within the LHIN, the utilization rate ranged from 48.7 referrals per 1,000 in Kitchener Waterloo Wellesley Woolwich Wilmot to 56.6 in **Guelph-Puslinch**.

### Referrals (per 1,000 population) 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
<b>Cambridge-North Dumfries</b>	46.6	46.2	49.9	
<b>Guelph-Puslinch</b>	49.3	51.6	56.6	
<b>Kitchener Waterloo Wellesley Woolwich Wilmot</b>	44.1	44.6	48.7	
<b>Wellington</b>	43.7	45.6	49.8	
<b>WW Total</b>	47.8	48.0	51.0	

\*Rank based on 2017/18 utilization rates

### Home Care Services

- In Waterloo Wellington LHIN, there were 562,211 home care visits and 1,942,593 service hours in 2017/18.
- The rate of home care visits was 707.3 per 1,000 population and the rate of service hours was 2,443.8 per 1,000 population.
- The following sub-regions had among the eight lowest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - **Cambridge-North Dumfries** had the 8<sup>th</sup> lowest rate of speech language therapy visits.
- Between 2014/15 and 2017/18 there was an increase in total visits of 6.3% and an increase in total hours of 17.2% in Waterloo Wellington LHIN. During this period personal support hours increased by 17.8%.
- Between 2014/15 and 2017/18 personal support hours rate increased by 13.7%.

## Summary of Home Care Service by Type, Waterloo Wellington LHIN, 2017/18

	Waterloo Wellington LHIN Residents	Ontario Residents*	Comments	LHIN % Change 2014/15 to 2017/18	Range across WW sub-regions**
<b>Service Visits</b>					
<b>All Visits†</b>	562,211	11,528,751		6.3%	61,677-282,407
Nursing Visit	369,199	7,539,458		7.7%	39,638-181,441
Physiotherapy	39,079	738,685		-6.7%	4,380-20,721
Occupational Therapy	37,563	615,215		7.1%	3,759-19,635
Social Work	6,528	56,973		5.2%	391-4,259
Nutrition and Dietetic	3,543	47,949		-24.6%	222-2,101
Speech Language Pathology	12,211	273,735		-4.7%	1,808-5,967
Case Management	93,640	2,211,107		9.9%	10,719-48,248
<b>Service Hours</b>					
<b>All Hours</b>	1,942,593	34,396,919		17.2%	183,747-999,015
Nursing Shift	125,294	2,366,020		2.4%	17,105-69,161
Personal Support Work and Homemaking	1,809,630	31,319,568		17.8%	165,918-925,995
Respite	7,669	711,331		n/a	717-3,859
<b>Service Visits per 1,000 population</b>					
<b>All Visits per 1,000 population †</b>	707.3	810.2		2.5%	655.3-783.1
Nursing Visit	464.4	529.8		3.9%	421.1-528.2
Physiotherapy	49.2	51.9		-10.0%	42.7-54.2
Occupational Therapy	47.3	43.2		3.3%	39.9-57.0
Social Work	8.2	4.0		1.5%	4.2-10.6
Nutrition and Dietetic	4.5	3.4		-27.3%	2.4-5.4
Speech Language Pathology	15.4	19.2		-8.1%	12.3-22.9
Case Management	117.8	155.4		6.0%	105.6-120.0
<b>Service Hours per 1,000 population</b>					
<b>All Hours</b>	2,443.8	2,417.3		13.0%	1,952.3-2,736.4
Nursing Shift	157.6	166.3		-1.2%	122.2-181.8
Personal Support Work and Homemaking	2,276.5	2,201.0		13.7%	1,762.9-2,600.3
Respite	9.6	50.0		n/a	7.6-14.0

\*Not all LHINs offer the same services or report case management services in the same manner.

\*\*Service rates per 1,000 population are calculated using 2017/18 service levels divided by 2016 population estimates from the Ministry of Finance. Typically 2017 population estimates would be used but they were not available at the sub-region level at time of calculation.

†Includes visits for respiratory, psychology, and 'other' service types (not shown), which are not consistently reported/available in all LHINs.

n/a – not applicable due to significant changes in funding and recording

## Palliative Care

### Services Received at Home by Palliative Patients FY 2016/2017

	Provincial Ranking	LHIN	Range Across WW sub-regions
Percent of patients who received palliative home visits(home servicers or physician) in the last 90 days of life	13	44%	37% to 50%
Percent of patients who received palliative home servicers in the last 90 days of life	14	34%	27% to 35%
Percent of patients who had physician home visits in the last 90 days of life	14	36%	31% to 43%
Percent of patients who receive palliative home services who died in hospital	4	20%	15% to 31%
Percent of palliative care patients discharged home from hospital with the discharge status "Home with Support"	13	90%	88% to 94%
Mean days spent at home/residence in last 6 months of life	13	165 days	163 to 166 days

*†Ranking in the province, compared to other LHINs.*

### Interpretation

- In 2016/2017, 44% of patients in Waterloo Wellington LHIN received palliative home visits in the last 90 days of life, which is greater than the provincial value of 36%.
  - Within the Waterloo Wellington LHIN, the **Wellington** sub-region reported the lowest percentage within the LHIN at 37% and **Guelph-Puslinch** sub-region had the highest percentage at 50%.
- In 2016/2017, the percent of patients in Waterloo Wellington LHIN who received palliative home servicer visits in the last 90 days of life was substantially higher than the province (34% vs 25%, respectively).
  - Within the Waterloo Wellington LHIN, all sub-regions reported that 27% or more of patients received home servicer visits in the last 90 days of life.
- In the Waterloo Wellington LHIN, the percentage of patients who received physician home visits in the last 90 days of life was the highest in the province at 36%, compared to the provincial 28%.
  - **Guelph-Puslinch** reported 43% of patients received physician home visits and **Wellington** reported the lowest percentage within the LHIN at 31%, which is still higher than the provincial percentage.
- Across Ontario, Waterloo Wellington LHIN reported that 20% of patients who received palliative home services who died in hospital, which is somewhat lower than the provincial percentage of 25%.
  - There is notable variation of percentages of patients who received palliative care who died in hospital across Waterloo Wellington sub-regions. The **Guelph-Puslinch** sub-region has the lowest percentage of palliative patients dying in hospital at 15% and **Wellington** reports 31% for the 2016/2017 fiscal year.
- Across LHINs, Waterloo Wellington appears to have the second highest percentage of palliative care patients discharged home with "Home with Supports" status, 90% in 2016/2017 compared to Ontario's 85%.

- Within Waterloo Wellington, the sub-regions vary from 88% in [Cambridge-North Dumfries](#) to 94% in [Guelph-Puslinch](#).
- Waterloo Wellington had the 2<sup>nd</sup> highest mean number of days at home among palliative patients in the last 6 months across all LHINs at 165 days, compared to the provincial number at 160 days.
  - Waterloo Wellington sub-regions are close in mean number of days that palliative patients spend at home in their last 6 months, ranging from 163 days in [Guelph-Puslinch](#) to 166 days in [Cambridge-North Dumfries](#).

#### **Palliative Hospital System Indicators, Waterloo Wellington (FY 2016/17)**

	<b>Provincial Ranking</b>	<b>LHIN</b>	<b>Range Across the Sub-regions</b>
Percent of patients who had one or more unplanned ED visits in the last 30 days of life	2	50%	49% - 52%
Percent of patients who had two or more unplanned ED visits in the last 30 days of life	1	12%	10% - 14%
Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days	3	18%	14% - 21%
Percent of people who died in hospital (all hospital settings and acute only)	2	43%	38% - 45%
Percent of people who died in acute hospital	1	36%	32% - 41%
Percent of patients who had two or more acute inpatient admissions in the last 30 days of life	5	5%	4% - 7%

#### **LHIN Comparison**

- Waterloo Wellington LHIN was **significantly lower** than the province in the following indicators:
  - Percent of patients who had one or more unplanned ED visits in the last 30 days of life
  - Percent of patients who had two or more unplanned ED visits in the last 30 days of life
  - Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days
  - Percent of people who died in hospital (all hospital settings and acute only)
  - Percent of people who died in acute hospital
    - For percent of patients who had one or more unplanned ED visits in the last 30 days of life, the following sub-regions were **significantly lower** than the province: [Cambridge-North Dumfries](#) and [Kitchener-Waterloo-Wilmot-Wellesley-Woolwich](#).
    - For percent of patients who had two or more unplanned ED visits in the last 30 days of life, the following sub-regions were **significantly lower** than the province: [Cambridge-North Dumfries](#) and [Kitchener-Waterloo-Wilmot-Wellesley-Woolwich](#).
    - For percent of palliative care patients discharged from hospital who visited ED at least once within 30 days, [Cambridge-North Dumfries](#) sub-region was **significantly lower** than the province.



- For percent of people who died in hospital (all hospital settings and acute only), the following sub-regions were **significantly lower** than the province: **Guelph-Puslinch**, **Cambridge-North Dumfries**, **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich**, and **Wellington**.
- For percent of people who died in acute hospital, the following sub-regions were **significantly lower** than the province: **Guelph-Puslinch**, **Cambridge-North Dumfries**, **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich**, and **Wellington**.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** was **significantly lower** than the province.

### Change Over Time

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, an average annual growth rate of 0% was observed across the Waterloo Wellington LHIN ranking 5<sup>th</sup> provincially.
  - Across sub-regions, **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** (0%) and **Guelph-Puslinch** (-2%) were observed highest and lowest, respectively.
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, an average annual growth rate of 0% was observed across the Waterloo Wellington LHIN ranking 10<sup>th</sup> provincially.
  - Across sub-regions, **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** (2%) and **Cambridge-North Dumfries** (-4%) were observed highest and lowest, respectively.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, an average annual growth rate of 2% was observed across the Waterloo Wellington LHIN ranking 3<sup>rd</sup> provincially.
  - Across sub-regions, **Cambridge-North Dumfries** (3%) and **Wellington** (0%) were observed highest and lowest, respectively.
- For percent of people who died in hospital (all hospital settings and acute only), an average annual growth rate of -2% was observed across the Waterloo Wellington LHIN ranking 10<sup>th</sup> provincially.
  - Across sub-regions, **Wellington** (1%) and **Cambridge-North Dumfries** (-3%) were observed highest and lowest, respectively.
- For percent of people who died in acute hospital, an average annual growth rate of -2% was observed across the Waterloo Wellington LHIN ranking 9<sup>th</sup> provincially.
  - Across sub-regions, **Wellington** (1%) and **Guelph-Puslinch** (-4%) were observed highest and lowest, respectively.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, an average annual growth rate of 2% was observed across the Waterloo Wellington LHIN ranking 1<sup>st</sup> provincially.
  - Across sub-regions, **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** (11%) and **Cambridge-North Dumfries** (-9%) were observed highest and lowest, respectively.

## Emergency Department

### Emergency Department Utilization

- In 2016/17, there were 283,246 ED visits to Waterloo Wellington LHIN hospitals, an increase of 9.2% from 2013/14. In the same time-period, the number of ED visits in the province increased by 6.5%.
- Waterloo Wellington's crude ED visit rate of 385.4 ED visits per 1,000 population was 10<sup>th</sup> highest in the province, lower than the provincial rate (442.2). This represented a 6.0% increase in crude visit rate in the LHIN from 2013/14 during which time the provincial crude visit rate climbed by 3.0%.
- Age adjusted ED visit rates per 1,000 population were highest for seniors 80+ at 863 visits per 1,000 population, following by seniors aged 65-79 (452 visits / 1,000 population), adults aged 18-44 (374 visits per 1,000 population), children aged 0-17 (350 visits per 1,000 population) while adults aged 45-64 years had the lowest usage rate in LHIN at 335 visits per 1,000 population, or less than 40% of the highest user age group.
  - **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** residents had the lowest ED visit rate of Waterloo Wellington's 4 sub-regions, at 325 visits per 1000 population.
  - **Wellington** sub-region had the highest crude ED visit rate at 555 visits per 1,000 population.
  - Overall, 3 of Waterloo Wellington 4 sub-regions had crude ED visit rates under the provincial value.
- Between 2013/14 and 2016/17 the number of Waterloo Wellington LHIN residents visiting the ED with lower acuity levels (CTAS IV and V) declined 7.4% to 87,385 visits. During this same time-period, visits by Ontario residents with CTAS IV and V declined 2.2%.
- Between 2013/14 and 2016/17 the number of visits with CTAS III increased by 17.1% and CTAS I & II increased by 17.8%, while provincially these numbers increased by 9.4% and 15.8% respectively.
- Overall, Waterloo Wellington LHIN ranked 10<sup>th</sup> highest in the province in proportion of ED visits by residents that were lower acuity (29.0% for Waterloo Wellington, and 33.5% for the province).
  - 3 out of 4 of Waterloo Wellington's sub-regions had a lower proportion of ED visits with lower acuity (CTAS IV and V) than the province.
  - **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** had the lowest proportion of ED visits with lower acuity of the LHIN's 4 sub-regions, at 22.4%, while **Wellington** had the highest at 50.9%, the 8<sup>th</sup> highest proportion of lower acuity ED visits by residents in the province.
- The most common causes for ED visits by Waterloo Wellington LHIN residents were diseases or disorders of the digestive system, diseases or disorders of the skin & breast and diseases or disorders of the ear, and nose or throat and accounted for 10.3%, 7.5%, and 7.1% of ED visits by Waterloo Wellington LHIN residents respectively.
- Follow-up examinations and other non-emergent conditions ranked 7<sup>th</sup> as a cause of ED visits and accounted for 5.2% of ED visits by Waterloo Wellington LHIN residents.
- 16.3% of the patients who visited ED in Waterloo Wellington LHIN hospitals arrived via ambulance in FY16/17, as compared to 15.6% for the province.
  - The proportion of ED visits that arrived by ambulance ranged from a low of 9.3% in **Wellington** sub-region to a high of 17.9% in Kitchener-Waterloo-Wilmot-Wellesley-Woolwich.
- 10.2% of the patients who visited ED in Waterloo Wellington LHIN hospitals were admitted in FY16/17, as compared to 9.8% for the province.
  - The proportion of ED visits that resulted in a patient being admitted to hospital ranged from a low of 6.8% in **Wellington** sub-region to a high of 11.2% in Kitchener-Waterloo-Wilmot-Wellesley-Woolwich.
- 3.7% of the patients who visited ED in Waterloo Wellington LHIN hospitals left without completing treatment in FY16/17, as compared to 3.9% for the province.

- 5.8% of ED visits to Waterloo Wellington LHIN hospitals were by patients who did not reside in Waterloo Wellington LHIN (inflow). This compares to 11.6% of ED visits by Waterloo Wellington LHIN residents that were accessed in other LHINs (outflow).

#### Top 10 Reasons for Emergency Department Visits by LHIN, 2016/17

Leading CACS groups, by LHIN of patient	Waterloo Wellington	
	#	% of total visits
(B128) Disease or Disorder Digestive System	30,952	10.3%
(B132) Disease or Disorder Skin & Breast	22,717	7.5%
(B112) Disease or Disorder Ear, Nose or Throat	21,445	7.1%
(B122) Other Disease or Disorder Cardiac System	17,933	5.9%
(B180) Contusion, Dislocation, Nerve & Other Soft Tissue Injury	17,281	5.7%
(B136) Disease or Disorder Musculoskeletal and Connective Tissue	15,869	5.3%
(B187) Follow-up Examination and Other Non Emergent Condition	15,675	5.2%
(B116) Disease or Disorder Respiratory System	14,375	4.8%
(B005) Other Condition with Acute Admission/Transfer	14,097	4.7%
(B188) Open Wound and Vascular Injury	14,056	4.7%

Measure—LHIN of Hospital	Waterloo Wellington		Ontario	
	#	LHIN % change 2013/14-2016/17	#	Ontario % change 2013/14-2016/17
Visits	283,246	9.2%	6,312,121	6.5%
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	51,895	17.0%	1,284,741	15.9%
III (urgent)	153,090	17.9%	2,876,687	9.6%
IV & V (less urgent/non urgent)	78,004	-8.2%	2,128,914	-2.0%
<b>% visits by CTAS level†</b>				
I & II (resuscitation/emergent)	18.3%		20.4%	
III (urgent)	54.0%		45.6%	
IV & V (less urgent/non urgent)	27.5%		33.7%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	16.3%		15.6%	
% of visits that were admitted	10.2%		9.8%	
% of visits that left without completing treatment	3.7%		3.9%	
<b>% Inflow visits</b>	5.8%			

Measure—LHIN of Patient	Waterloo Wellington		Ontario	
	#	LHIN % change 2013/14-2016/17	#	Ontario % change 2013/14-2016/17
Visits	301,791	8.9%	6,183,151	6.4%
ED visit rate/1,000 population	385.4	6.0%	442.2	3.0%
<b>Age-specific ED visit rates per 1,000 population</b>				
ED visit rate, age 0-17 years	350		429	
ED visit rate, age 18-44 years	374		411	
ED visit rate, age 45-64 years	335		388	
ED visit rate, age 65-79 years	452		516	
ED visit rate, age 80+ years	863		913	
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	55,173	17.8%	1,265,237	15.8%
III (urgent)	158,936	17.1%	2,825,385	9.4%
IV & V (less urgent/non urgent)	87,385	-7.4%	2,070,962	-2.2%
<b>% visits by CTAS level</b>				
I & II (resuscitation/emergent)	18.3%		20.5%	
III (urgent)	52.7%		45.7%	
IV & V (less urgent/non urgent)	29.0%		33.5%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	15.7%		15.8%	
% of visits that were admitted	10.1%		9.9%	
% of visits that left without completing treatment	3.7%		3.8%	
% Outflow visits	11.6%			

# ED Visit Utilization Summary, by sub-region of Patient Residence, 2016/17      Waterloo Wellington LHIN

Sub-Region of Patient Residence	Guelph-Puslinch	Cambridge-North Dumfries	Kitchener-Waterloo-Wilmot-Wellesley-Woolwich	Wellington	LHIN	Ontario
Visits	60,344	58,596	130,633	52,218	301,791	6,183,151
ED visit rate/1,000 population	431	399	325	555	385.4	442
% Outflow to other LHINs	6.9%	10.9%	9.0%	24.0%	11.6%	
<b>Age-specific ED visit rates per 1,000 population</b>						
ED visit rate, age 0-17 years	424	355	279	524	350	429
ED visit rate, age 18-44 years	424	407	311	562	374	411
ED visit rate, age 45-64 years	366	348	286	458	335	388
ED visit rate, age 65-79 years	445	454	404	620	452	516
ED visit rate, age 80+ years	930	839	771	1154	863	913
<b># visits by CTAS level</b>						
# CTAS Level I & II visits	13184	10809	25333	5847	55,173	12715
# CTAS Level III visits	32252	31032	76056	19596	158,936	20741
# CTAS Level IV & V visits	14890	16719	29213	26563	87,385	13353
<b>% visits by CTAS level</b>						
I & II (resuscitation/emergent)	21.8%	18.4%	19.4%	11.2%	18.3%	20.5%
III (urgent)	53.4%	53.0%	58.2%	37.5%	52.7%	45.7%
IV & V (less urgent/non urgent)	24.7%	28.5%	22.4%	50.9%	29.0%	33.5%
<b>Other visit characteristics</b>						
% of visits that arrived by ambulance	16.4%	15.9%	17.9%	9.3%	15.7%	15.8%
% of visits that were admitted	10.6%	9.9%	11.2%	6.8%	10.1%	9.9%
% of visits that left without completing treatment	4.1%	4.7%	3.4%	2.8%	3.7%	3.8%

### Emergency Department Performance

- Since fiscal year 2013/14, 90<sup>th</sup> percentile ambulance offload time increased to 52 minutes in fiscal year 2017/18 (above provincial rate of 46 minutes).
- Overall ED volumes increased since fiscal year 2013/14 to 260,404 in fiscal year 2017/18, and ED volumes for non-admitted high acuity patients had risen in the same timeframe to 167,885.
- ED LOS for Admitted Patients (90<sup>th</sup> percentile) increased since 2013/14 from 16 to 23 hours in fiscal year 2017/18, and the % of patients admitted within a target of 8 hours decreased to 53% during that time.
- Time to Inpatient Bed (90<sup>th</sup> percentile) increased since fiscal year 2013/14 to 17 hours in fiscal year 2017/18.
- Waterloo Wellington LHIN was the **lowest** ranked LHIN for % within Time to PIA (within 2 hours), with 64% of patients completed within target.
- Waterloo Wellington LHIN was ranked 2<sup>nd</sup> lowest for % within target for non-admitted low acuity patients, at 81% of patients (versus provincial value rate of 87%) in fiscal year 2017/18.

## Emergency department visits, Waterloo Wellington LHIN

Measure	Fiscal Year					Range across sites, FY 17/18
	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	
All emergency department visits						
ED Volumes (All)	240,006	254,164	257,516	261,451	260,404	21,799 - 66,619
Ambulance Offload Time - 90th Percentile (mins)	43	45	42	35	52	16 - 77
Time to PIA - 90th percentile	4	4	4	3	4	3 - 5
% with Time to PIA <= 2 Hours	67%	71%	71%	72%	64%	49% - 77%
Consult Request to Arrival - 90th Percentile	2	2	2	2	1	0 - 2
% of Consults with Consult Request to Arrival <= 2 Hrs	92%	90%	90%	92%	95%	86% - 99%
Time to Disposition (All) - 90th Percentile	7	7	7	7	7	6 - 9
ED LOS - 90th Percentile	7	7	7	7	8	7 - 10
Non-admitted low acuity ED visits						
ED Volumes - Non-Admitted Low Acuity	69,813	67,579	66,418	63,067	63,805	11,124 - 15,173
% Within Target of 4 Hrs - Non-Admitted Low Acuity	88%	88%	87%	88%	81%	67% - 88%
Time to Disposition for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	5	4 - 7
ED LOS for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	5	4 - 7
Non-admitted high acuity ED visits						
ED Volumes - Non-Admitted High Acuity	144,672	160,117	164,180	170,392	167,885	9,057 - 44,407
% Within Target of 8 Hrs - Non-Admitted High Acuity	95%	96%	96%	96%	94%	88% - 97%
Time to Disposition for Non-Admitted High Acuity - 90th Percentile	8	7	7	7	8	6 - 9
ED LOS for Non-Admitted High Acuity - 90th Percentile	7	6	6	6	7	6 - 8
Admitted ED visits						
ED Volumes - Admitted	25,389	26,318	26,770	27,838	28,526	1,264 - 8,923
Admission Rate - CTAS 1	51%	58%	61%	58%	56%	19% - 61%
Admission Rate - CTAS 2	26%	25%	25%	25%	23%	19% - 27%
Admission Rate - CTAS 3	10%	10%	9%	9%	10%	8% - 11%
Admission Rate - CTAS 4	1%	1%	1%	1%	2%	1% - 2%
Admission Rate - CTAS 5	1%	1%	1%	1%	1%	0% - 1%
Time to Disposition for Admitted - 90th Percentile	9	9	9	9	10	8 - 11
ED LOS for Admitted - 90th Percentile	16	18	18	18	23	17 - 30
% Within Target of 8 Hrs - Admitted	65%	64%	64%	64%	53%	42% - 65%
Time to Inpatient Bed - 90th Percentile	10	13	13	13	17	12 - 24

## Acute Care

### Acute Care Utilization by Residents of the Waterloo Wellington LHIN

#### Acute Separations

- In 2016/17, there were 54,868 acute separations (discharges), 258,557 acute days, and 290,688 total days (including acute and alternate level of care days) for Waterloo Wellington LHIN residents.
- The acute separation rate for Waterloo Wellington LHIN residents was 70 separations per 1,000 residents in 2016/17 but varied substantially by sub-region of patient residence.
  - Rates were the lowest for residents of the [Kitchener-Waterloo-Wilmot-Wellesley-Woolwich](#) sub-region and highest for residents of [Wellington](#).
  - By sub-region, [Kitchener-Waterloo-Wilmot-Wellesley-Woolwich](#) had the 7<sup>th</sup> highest volume of separations by sub-region of patient (26,263).
- From 2013/14 to 2016/17, the overall acute separation rate for Waterloo Wellington LHIN residents increased by 5.7%.

#### Acute Days

- The rate of acute days for Waterloo Wellington LHIN residents was 330 acute days per 1,000 residents in 2016/17.
  - Rates were the lowest for residents of the [Cambridge-North Dumfries](#) sub-region (316) and highest for [Wellington](#) (362) in 2016/17.

#### Mean Length of Stay

- The mean total length of stay (including acute days and days waiting for an alternate level of care) for Waterloo Wellington LHIN residents was 5.3 days, while the mean acute length of stay was 4.7 days in 2016/17. These values are well below the mean lengths of stay for Ontario residents. Waterloo Wellington LHIN residents had the lowest mean acute length of stay and 2<sup>nd</sup> lowest mean total length of stay compared to residents of all other LHINs.
  - Residents in the Waterloo Wellington LHIN sub-regions of [Guelph-Puslinch](#), [Cambridge-North Dumfries](#), and [Wellington](#) were ranked in the lowest 8 among Ontario sub-regions in terms of mean total and acute lengths of stay – with values well below Ontario.

#### HIG Weight

- The Ontario HBAM Inpatient Grouper (HIG) (similar to CMG+) aggregates acute care separations with similar resource use and clinical characteristics based on most responsible diagnosis and/or principal intervention. The HIG weight is a relative cost value that reflects the resources consumed during each acute care stay. The mean HIG weight for Waterloo Wellington LHIN residents increased slightly from 1.38 in 2014/15 to 1.41 in 2016/17, the 2<sup>nd</sup> lowest value amongst LHINs.
- The top 3 HIGs accounting for the highest proportion of acute care days for Waterloo Wellington LHIN residents in 2016/17 were: 196-heart failure without coronary angiogram, 026-ischemic event of central nervous system, and 654-other/unspecified sepsis.



### Acute Care Hospital Utilization (Excluding ALC) LHIN of Patient, Waterloo Wellington LHIN, 2016/17

	Waterloo Wellington LHIN Residents	Ontario Residents*	Rank among LHINs	Range across WW sub-regions
<b>Acute Care Measures</b>				
Total Population	783,024	13,982,984		94,119 – 402,042
Acute Separations	54,868	1,028,979		7,553 – 26,261
Acute Separation Rate per 1,000 Population	70	74		65 - 80
Acute Days	258,557	5,455,693		37,865 – 196,274
Acute Days Rate per 1,000 Population	330	390	4 <sup>th</sup> Highest	409 – 526
Total Days	290,688	6,477,528		42,912 – 222,442
Total Days Rate per 1,000 Population	371	463	3 <sup>rd</sup> Highest	453 – 594
Mean Acute LOS	4.7	5.3	Lowest	4.3 – 5.6
Mean Total LOS	5.3	6.3	2 <sup>nd</sup> Lowest	4.9 – 6.4
Mean HIG Weight	1.41	1.55	2 <sup>nd</sup> Lowest	—
<b>Leading HIGs (Acute Care Days)†</b>				
(196) Heart Failure w/o Coronary Angiogram	7,996	175,995		1,014 – 3,937
(026) Ischemic Event of Central Nervous System	4,666	96,544		534 – 2,719
(654) Other/Unspecified Sepsis	4,135	88,667		411 – 2,142

\* Ontario residents exclude Out-of-province

† Leading HIGs include Out-of-province for Ontario Values

### Acute Care Utilization for Waterloo Wellington LHIN Facilities

- There were 49,623 acute separations, 225,343 acute days, and 256,085 total days at Waterloo Wellington LHIN hospitals in 2016/17.

#### Separations

- Separations increased by 9.1% between 2013/14 and 2016/17. During this same period, for Ontario hospitals overall, separations increased by 3.8%.

#### Acute Days

- Acute days increased by 6.2% between 2013/14 and 2016/17. Acute days increased by 2.2%, for all Ontario hospitals overall, during this same period.
- Mean acute length of stay for 2016/17 at hospitals in the Waterloo Wellington LHIN was 4.5 days. This is the lowest value among all LHINs and is lower than the provincial result of 5.3 days.

#### Total Days

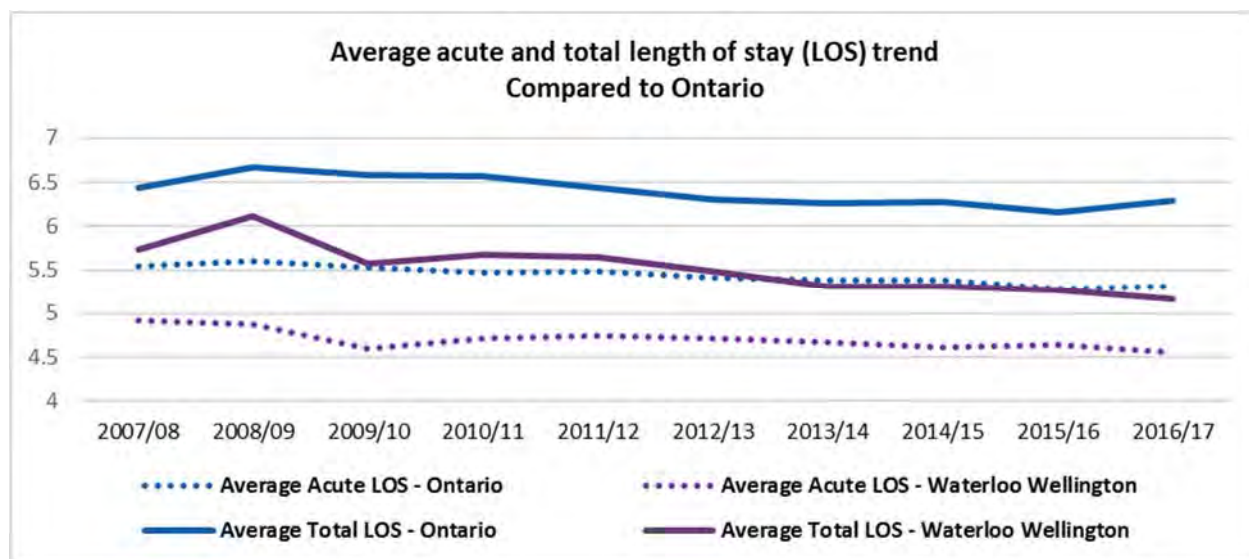
- Total days increased by 6.1% between 2013/14 and 2016/17. Overall Ontario hospitals had an increase of 4.2% of total days during this period.
- Mean total length of stay for this LHIN was 5.2 days. Lower than mean total length of stay for Ontario, which was 6.3 days, and the 2<sup>nd</sup> lowest within all LHINs.

#### Mean Ontario HBAM Group (HIG) Weight

- Mean HIG weight for Waterloo Wellington LHIN hospitals in 2016/17 of 1.33 was lower than the provincial value of 1.55.

### Acute care hospital utilization, Waterloo Wellington LHIN, 2016/17

Measure	Waterloo Wellington LHIN	Ontario hospitals	Comments	LHIN % change 2013/14 - 2016/17	Range within LHINs
Acute separations	49,623	1,041,308		9.1%	26,295 - 159,315
Total days	256,085	6,542,800		6.1%	193,259 - 1,050,391
Mean total LOS	5.2	6.3	2 <sup>nd</sup> lowest		5.0 - 7.3
Acute days	225,343	5,518,912		6.2%	142,875 - 917,167
Mean acute LOS	4.5	5.3	Lowest		4.5 - 5.8
Mean HIG weight	1.33	1.55			1.23 - 1.94



## Acute Care Inflow/Outflow

### Inflow

- 7.3% of hospital separations from Waterloo Wellington LHIN hospitals were by non- Waterloo Wellington LHIN residents.

### Outflow

- 16.1% of separations for Waterloo Wellington LHIN residents were from hospitals outside Waterloo Wellington LHIN.

### Inflow - Outflow, Waterloo Wellington LHIN, 2016/17

Measure	Waterloo Wellington LHIN	Ontario Hospitals	Comments	Range across WW sub-regions
Acute separations, LHIN of hospital	49,623	1,041,322		5,188 – 22,825
Acute separations, LHIN of patient	54,872	1,041,322		7,553 – 26,263
% inflow	7.3%			NA
% outflow	16.1%			13.1% - 31.3%

## Post-Acute Care

### Inpatient Rehabilitation Utilization

#### Rehabilitation Admissions

- The number of total rehabilitation admissions at the LHIN hospitals, including both general admissions and special admissions, was 1,080 in FY 16/17, an increase of 7.2% from FY 13/14.
  - The number of general rehabilitation admissions was 1,080 in FY 16/17, an increase of 7.2% from FY 13/14.
- The number of total rehabilitation admissions of the LHIN residents, was 1,166 in FY 16/17, an increase of 5.3% from FY 13/14.

#### Active Cases and Discharges

- In FY 16/17, the number of active cases was 1,517 while the number of discharges was 1,074.

#### Inpatient Days

- The number of total inpatient days was 25,514 in FY 16/17.
- The mean length of stay at the LHIN hospitals was 23.8 days.
- By sub-region of patient residence:
  - **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** residents had the longest length of stay at 25.5 days.
  - **Cambridge-North Dumfries** residents had the shortest length of stay at 22.0 days.

#### Admission Rate

- The number of admissions per 100,000 adults (age 18+) was 187.6 in FY 16/17, an increase of 1.6% from FY 13/14.
  - Age group 18-44 years had the lowest admission rate, 30.5 per 100,000 population.
  - Age group 80+ years had the highest admission rate, 1,445.1 per 100,000 population.
- By sub-region of patient residence:
  - **Guelph-Puslinch** had the highest admission rate at 354.7.
  - **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** had the lowest admission rate at 175.4.

#### Active Case Rate

- The number of active cases per 1,000 population age 18+ was 258.3.

#### Discharge Rate

- The number of discharges per 1,000 population age 18+ was 187.2.

#### Leading Rehabilitation Group

- The 5 leading rehabilitation groups that contributed to the total admissions in FY 16/17 were:
  - Stroke accounted for 304 admissions or 26.1% of the total admissions.
  - Other disabilities accounted for 263 admissions or 22.6% of the total admissions.
  - Fracture of lower extremity accounted for 164 admissions or 14.1 % of the total admissions.
  - Other orthopaedic accounted for 62 admissions or 5.3% of the total admissions.
  - Amputation accounted for 52 admissions or 4.5% of the total admissions.

## Outflow

- Hospitals outside the LHIN accounted for 11.5% of the total rehabilitation admissions of the LHIN residents
  - Wellington residents had the highest rate of admission to hospitals outside the LHIN at 26.1%.
  - Kitchener-Waterloo-Wilmot-Wellesley-Woolwich residents had the lowest rate of admission to hospitals outside the LHIN at 8.2%.

## Inflow

- 4.4% of the rehabilitation admissions at the hospitals in the LHIN were residents from outside Waterloo Wellington.

Rehab Admissions, Active Cases, Discharges and Days*	LHIN	Ontario	Ranking Among LHINs**	% Change 2013/14-2016/17	Range across sub-region
<b>LHIN of hospital</b>					
General admissions	1,080	28,691		7.2%	
Special admissions		4,444			
Total admissions	1,080	33,135		7.2%	
% Inflow inpatient rehab admissions	4.4%				
Active Cases	1,517	43,329			
Discharges	1,074	33,133			
Total Days (discharged cases only)	25,514	839,228			
Mean Length of Stay (discharged cases only)	23.8	25.3			
<b>LHIN of patient</b>					
Total population age 18+	621,410	11,287,810		3.8%	
Total admissions	1,166	33,016		5.3%	138-562
Admissions/100,000 population age 18+	187.6	292.5	1 <sup>st</sup> lowest	1.6%	175.4-215.9
Admissions/100,000 population age 18-44 years	30.5	30.4			24.9-58.4
Admissions/100,000 population age 45-64 years	114.0	150.9	1 <sup>st</sup> lowest		107.4-133.7
Admissions/100,000 population age 65-79 years	477.6	689.3	3 <sup>rd</sup> lowest		396.5-587.8
Admissions/100,000 population age 80+ years	1,445.1	2,311.8	4 <sup>th</sup> lowest		1,012.6-1,737.9
% Outflow inpatient rehabilitation admissions	11.5%				8.2%-26.1%
Active cases per 1,000 population age 18+	258.3	382.3	1 <sup>st</sup> lowest		225.0-273.0
Discharges per 1,000 population age 18+	187.2	292.5	1 <sup>st</sup> lowest		138-564
Mean Length of Stay (discharged cases only)	24.4	25.3			22.0-25.5

Measure	Guelph-Puslinch	Cambridge-North Dumfries	Kitchener-Waterloo-Wilmot-Wellesley-Woolwich	Wellington
Rehab Admissions	218	248	562	138
Rehab Admission Rate per 100,000 Population	193.3	215.9	175.4	188.1
Rehab Active Cases	285	280	875	165
Rehab Active Case Rate per 100,000 Population	252.8	243.8	273.0	225.0
Rehab Discharges	217	244	564	138
Rehab Discharge Rate per 100,000 Population	192.5	212.5	176.0	188.1
Total Inpatient Days (discharged cases only)	5,352	5,368	14,400	3,209
Mean LOS (discharged cases only)	24.7	22.0	25.5	23.3
<b>Age specific admission rates per 100,000 population</b>				
18-44 years	34.4	27.8	24.9	58.4
45-64 years	111.3	133.7	107.4	114.2
65-79 years	469.9	587.8	463.8	396.5
80+ years	1,560.5	1,737.9	1,415.2	1,012.6

Rehab Admissions, by Leading Rehabilitation Groups*	LHIN	% of Total Rehab Admission
<b>LHIN of Patient</b>		
01-Stroke	304	26.1%
18-Other disabilities	263	22.6%
10-Fracture of lower extremity	164	14.1%
12-Other orthopaedic	62	5.3%
07-Amputation	52	4.5%
11-Replacement of lower extremity		
03-Non-traumatic brain injury		
13-Cardiac		
06-Non-traumatic spinal cord injury		
02-Traumatic brain injury		
16-Major multiple trauma		

\* FY 16/17 data unless noted otherwise.

\*\* Top or bottom 4 ranking in the province, compared to other LHINs.

## Complex Continuing Care Utilization

### Complex Continuing Care

- In 2016/17, there were 1,379 CCC active cases treated in Waterloo Wellington LHIN hospitals and residents from outside the LHIN accounted for 5.7% of these active cases. In 2016/17, there were 1,172 admissions and 1,165 discharges from Waterloo Wellington LHIN hospital CCC units. Waterloo Wellington LHIN hospitals had a mean LOS of 48.9 days - ranking 3<sup>rd</sup> across LHINs.
- There were increases in the number of active cases (2.0%), admissions (4.7%), and discharges (6.4%) for Waterloo Wellington LHIN hospital CCC units between 2013/14 and 2016/17, while there was a 22.7% decrease in total days.
- During the period, the mean length of stay in CCC beds decreased from 67.4 days to 48.9 days.
- In 2016/17, there were 1,366 CCC active cases for Waterloo Wellington LHIN residents, and 4.8% of these cases were treated in hospitals outside the LHIN.
- The active case rate for Waterloo Wellington LHIN residents was lower than the provincial value.

### Utilization of Complex Continuing Care, Waterloo Wellington LHIN and Ontario, 2016/17

Measure	Waterloo Wellington LHIN		Ontario	
	LHIN	% Change	Provincial	% Change
	Values	2013/14-2016/17	Value	2013/14-2016/17
<b>LHIN of Hospital</b>				
Active Cases	1,379	2.0%	29,466	-0.1%
% Inflow	5.7%			
Admissions	1,172	4.7%	24,108	0.5%
Discharges	1,165	6.4%	23,995	-0.2%
Total Days	57,014	-22.7%	1,855,227	-2.0%
Mean LOS	48.9		77.3	
<b>LHIN of Patient</b>				
Active Cases	1,366	0.9%	29,366	0.3%
Active cases/100,000 population	174.5	-1.8%	210.0	-2.9%
% Outflow	4.8%			
Admission	1,159	3.4%	24,022	0.8%
Admissions/100,000 population	148.0		171.8	
Discharges	1,160	5.6%	23,908	0.1%
Discharges/100,000 population	148.1		171.0	
Total Days	59,164	-11.5%	1,850,599	-1.1%
Mean LOS	51.0		77.4	

## Alternate Level of Care

### LHIN overview

Waterloo Wellington LHIN						
Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Rank
Acute ALC Days (closed cases)	29,137	33,026	30,305	30,742	NV	2
% ALC Days (Acute Inpatient closed cases)	12.1%	13.2%	11.9%	12.0%	NV	3
Volume of Closed Cases	3,997	4,143	3,961	3,888	4,037	8
Volume of Closed Cases - Complex Continuing Care	626	642	549	523	447	
Volume of Closed Cases - Home with CCAC Services	1,240	1,347	1,325	1,346	1,530	
Volume of Closed Cases – Rehabilitation	966	823	789	675	847	
90 <sup>th</sup> Percentile Wait of Closed Cases (Days)	20	21	22	22	27	1
90 <sup>th</sup> Percentile Wait of Closed Cases - Complex Continuing Care	17	20	19	18	20	
90 <sup>th</sup> Percentile Wait of Closed Cases - Home with CCAC Services	30	36	37	42	44	
90 <sup>th</sup> Percentile Wait of Closed Cases – Rehabilitation	9	10	9	10	12	
Volume of Open Cases on the last day of the year	134	148	121	134	161	3
Volume of Open Cases - Complex Continuing Care	21	29	9	13	16	
Volume of Open Cases - Home with CCAC Services	46	73	78	76	78	
Volume of Open Cases - Long Term Care	4	2	4	7	20	
90 <sup>th</sup> Percentile Wait of Open Cases	104	179	168	102	218	5
90 <sup>th</sup> Percentile Wait of Open Cases - Complex Continuing Care	49	175	0	16	26	
90 <sup>th</sup> Percentile Wait of Open Cases - Home with CCAC Services	73	124	168	126	200	
90 <sup>th</sup> Percentile Wait of Open Cases - Long Term Care	0	0	0	0	247	
Throughput Ratio (discharged case/newly added cases)	0.99	1.00	1.01	1.00	0.99	11
% of Cases Designated ALC Within 1 Day	5.7%	6.6%	6.3%	8.1%	6.5%	9
% of Cases Designated ALC Within 2 Days	12.4%	13.1%	12.8%	14.4%	12.6%	10
% of Cases Designated ALC Within 3 Days	21.2%	21.2%	20.2%	23.2%	21.4%	12
ALC Rate - All Inpatient Services	8.5%	10.0%	9.4%	9.4%	12.8%	4
ALC Rate - Acute Inpatient Services	11.5%	12.7%	10.9%	10.3%	14.6%	6
ALC Rate - Post-Acute Inpatient Services	5.2%	7.0%	7.7%	8.4%	10.5%	5
ALC Rate - CCC Inpatient Services	6.5%	8.1%	11.5%	12.9%	16.2%	6
ALC Rate - Rehab Inpatient Services	10.1%	14.7%	18.4%	23.0%	18.8%	14
ALC Rate - Mental Health Inpatient Services	3.7%	5.0%	4.1%	3.8%	5.6%	5



## Closed ALC Cases

### Acute ALC Days

- Acute ALC Days increased by 1,605 from FY 13/14 to FY 16/17

### % ALC Days (Acute Inpatient)

- % ALC Days decreased from 12.1% in FY 13/14 to 12.0% in FY 16/17

### Volume of Closed Cases

- The volume of closed cases for all inpatient services increased by 1% from 3,997 in FY 13/14 to 4,037 in FY 17/18.
  - Complex Continuing Care – number of closed cases decreased by 29% from 626 in FY 13/14 to 447 in FY 17/18
  - Home with CCAC Services – number of closed cases increased by 23% from 1,240 in FY 13/14 to 1,530 in FY 17/18
  - Rehabilitation – number of closed cases decreased by 12% from 966 in FY 13/14 to 847 in FY 17/18

### 90<sup>th</sup> Percentile Wait of Closed Cases

- The wait time for closed cases (all inpatient services and all discharge destinations) increased by 35% from 20 days in FY 13/14 to 27 days in FY 17/18. Tied for **lowest** across LHINs at the end of FY 17/18.
  - Complex Continuing Care – wait time increased by 18% from 17 days in FY 13/14 to 20 days in FY 17/18.
  - Home with CCAC Services – wait time increased by 47% from 30 days in FY 13/14 to 44 days in FY 17/18.
  - Rehabilitation – wait time increased by 33% from 9 days in FY 13/14 to 12 days in FY 17/18.

### Wait Time by Sub-Region of Patient Residence

- **Wellington** residents had the longest wait in the LHIN at 50 days; **Cambridge-North Dumfries** had the shortest at 22 days.
- **Cambridge-North Dumfries** is 2<sup>nd</sup> lowest in the province
- **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** is tied 3<sup>rd</sup> lowest in the province

## Open ALC Cases

### Volume of Open Cases

- The number of ALC waitlist entries open across all inpatient bed types increased by 20% from 134 at the end of FY 13/14 to 161 at the end of FY 17/18.
  - Complex Continuing Care – number of open cases decreased by 24% from 21 at the end of FY 13/14 to 16 at the end of FY 17/18
  - Home with CCAC Services – number of open cases has number of open cases increased by 70% from 46 at the end of FY 13/14 to 78 at the end of FY 17/18
  - Long-term Care – number of open cases increased by 400% from 4 at the end of FY 13/14 to 20 at the end of FY 17/18

### 90<sup>th</sup> Percentile Wait of Open Cases

- The wait time for open cases (all inpatient services and all discharge destinations) increased by 110% from 104 days at the end of FY 13/14 to 218 days at the end of FY 17/18. Patients awaiting discharge from Waterloo Wellington LHIN hospitals had waited 191 days longer than patients who were discharged in 17/18, and had waited the 10<sup>th</sup> longest across the LHINs at the end of FY 17/18.

- Home with CCAC Services – wait time decreased by 47% from 49 days at the end of FY 13/14 to 26 days at the end of FY 17/18.
- Home with CCAC Services – wait time increased by 174% from 73 days at the end of FY 13/14 to 200 days at the end of FY 17/18.
- Long-term Care – wait time was 247 days at the end of FY 17/18.

#### *Wait Time by Sub-Region of Patient Residence*

- **Kitchener-Waterloo-Wilmot-Wellesley-Woolwich** residents had the longest wait at 247 days; **Cambridge-North Dumfries** had the shortest at 159 days

#### **ALC Wait Time (Days) by Sub-Region of Patient Residence**

Waterloo Wellington LHIN					
Closed & Open Cases - All Discharge Destinations by Sub-Region	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
<i>90<sup>th</sup> Percentile Wait of Closed Cases</i>					
301 GUELPH-PUSLINCH	17	17	20	21	26
302 CAMBRIDGE-NORTH DUMFRIES	21	25	28	22	22
303 KITCHENER-WATERLOO-WILMOT-WELLESLEY-WOOLWICH	20	22	21	22	24
304 WELLINGTON	25	29	27	39	50
<i>90<sup>th</sup> Percentile Wait of Open Cases</i>					
301 GUELPH-PUSLINCH	80	41	267	57	221
302 CAMBRIDGE-NORTH DUMFRIES	42	127	73	82	159
303 KITCHENER-WATERLOO-WILMOT-WELLESLEY-WOOLWICH	109	181	175	177	247
304 WELLINGTON	0	91	56	88	218

#### *Hospital Processes and Capacity*

##### **ALC Throughput Ratio**

- In the Waterloo Wellington LHIN, the throughput ratio increased from 0.99 in FY 13/14 to 1.01 in FY 15/16 and decreased to 0.99 by FY 17/18

##### **Percentage of Patients Designated ALC within 1, 2 & 3 Days of Admission**

- The percentage of patients that have been designated as requiring an alternate level of care within one, two and three days of admission to hospital increased in the Waterloo Wellington LHIN from FY 13/14 to FY 17/18. ALC within 1 day is below the provincial value (6<sup>th</sup> in ON), with 2 day and 3 day above the provincial value (5<sup>th</sup> & 3<sup>rd</sup> in ON).

##### **ALC Rate (All Inpatient Services)**

- The annual ALC rate for all inpatient beds increased from 8.5% in FY 13/14 to 12.8% in FY 17/18.
- In FY 17/18, the Waterloo Wellington LHIN was below the provincial rate of 15.4%.

##### *Acute I/P Services*

- Waterloo Wellington LHIN increased over the past 5 fiscal years (11.5% FY 13/14; 14.6% FY 17/18) and is 1.6% below the provincial value.

##### *Post-Acute I/P Services*

- Waterloo Wellington LHIN increased over the past 5 fiscal years (5.2% FY 13/14; 10.5% FY 17/18). Waterloo Wellington LHIN is below the provincial Post-acute ALC rate (10<sup>th</sup> in ON).
  - CCC Inpatient Services – 9<sup>th</sup> across LHINs for FY 17/18. Rate increased from 6.5% in FY 13/14 to 16.2% in FY 17/18.
  - Mental Health Inpatient Services – 10<sup>th</sup> across LHINs for FY 17/18. Rate increased from 3.7% in FY 13/14 to 5.6% in FY 17/18.
  - Rehab Inpatient Services – Highest across LHINs for FY 17/18. Rate increased from 10.1% in FY 13/14 to 18.8% in FY 17/18.

#### LHIN/Facility/Site – Annual ALC Rate

Province/LHIN/Facility/Site			Annual ALC Rate					% Change FY 13/14 to FY 17/18
			FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	
<b>Provincial</b>			<b>13.8%</b>	<b>13.7%</b>	<b>13.9%</b>	<b>14.8%</b>	<b>15.4%</b>	
<b>LHIN</b>	<b>3</b>	<b>Waterloo Wellington</b>	<b>8.5%</b>	<b>10.0%</b>	<b>9.4%</b>	<b>9.4%</b>	<b>12.8%</b>	<b>4.3%</b>
<b>Facility</b>	601	HOMEWOOD HEALTH CENTRE	1.3%	1.6%	1.7%	2.6%	2.3%	1.0%
<b>Facility</b>	656	GROVES MEMORIAL COMMUNITY HOSPITAL	13.6%	14.1%	12.6%	15.6%	27.4%	13.8%
<b>Facility</b>	661	CAMBRIDGE MEMORIAL HOSPITAL	13.6%	13.5%	13.9%	8.7%	9.0%	(-4.6%)
<b>Facility</b>	665	GUELPH GENERAL HOSPITAL	11.4%	12.4%	11.8%	12.6%	14.6%	3.2%
<b>Facility</b>	666	ST JOSEPH'S HEALTH CENTRE (GUELPH)	5.1%	7.0%	10.7%	8.9%	12.3%	7.3%
<b>Facility</b>	699	ST MARY'S GENERAL HOSPITAL	11.0%	14.5%	10.9%	10.5%	15.0%	4.0%
<b>Facility</b>	930	GRAND RIVER HOSPITAL CORP	9.7%	11.6%	10.5%	11.3%	15.5%	5.8%
<b>Site</b>	1912	GRAND RIVER HOSPITAL - FREEPORT	10.4%	15.0%	14.1%	14.7%	17.7%	7.3%
<b>Site</b>	4107	GRAND RIVER - WATERLOO SITE	9.2%	9.4%	8.3%	9.3%	14.1%	4.8%
<b>Facility</b>	963	NORTH WELLINGTON HEALTHCARE	10.1%	17.0%	16.9%	19.0%	37.1%	27.0%
<b>Site</b>	4207	LOUISE MARSHALL HOSPITAL (MOUNT FOREST)	14.4%	19.5%	14.0%	21.0%	46.7%	32.3%
<b>Site</b>	4208	PALMERSTON & DISTRICT HOSPITAL	6.2%	14.6%	19.3%	16.7%	26.0%	19.7%

- In FY 17/18, North Wellington Healthcare had the highest ALC Rate across the Waterloo Wellington LHIN at the facility level, with Louise Marshall Hospital – Mount Forest having the highest site level rate.
- Louise Marshall Hospital – Mount Forest had the greatest increase in ALC Rate since FY 13/14 (+32.3%)
- Cambridge Memorial Hospital had the greatest decrease in ALC Rate since FY 13/14 (-4.6%).

## Long-Term Care

### Long-Term Care Bed Supply

- 36 LTC homes are licensed and approved to operate in Waterloo Wellington LHIN.
- As of February 2018, there were a total of 4,142 Long-Term Care beds in operation in Waterloo Wellington LHIN.
- With the exception of 32 beds designated as Short-stay, Respite or Convalescent care beds, almost all of the LTC beds are designated Long-Stay Beds or Interim beds..

### Long-Term Care Waitlist & Placements

- Of the 1,420 patients placed in Waterloo Wellington LHIN Long-Term Care Homes in FY 2017/18, approximately 79% were from the community while only 14% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- Of the 1,394 residents of Waterloo Wellington LHIN placed in Ontario Long-Term Care Homes in FY 2017/18, approximately 79% were from the community while only 13% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- The median time to placement in a Waterloo Wellington LHIN long-term care home, as of March 2018, was 120 days.
  - Half of community patients waited less than 135 days for a placement in a Waterloo Wellington LHIN LTC home while half of hospital patients waited less than 70 days for placement in a Waterloo Wellington LHIN LTC Home.
- The median time to placement for a Waterloo Wellington LHIN resident to be placed in a long-term care home, as of March 2018, was 119 days.
  - Half of community patients from Waterloo Wellington LHIN waited less than 135 days for a placement in an Ontario LTC home while half of hospital patients waited less than 71 days for placement.
- As of March 2018, there were 1,632 patients on the waitlist waiting for placement in a Long-Term Care home in Waterloo Wellington LHIN (not including patients awaiting transfer from one LTC home to another).
- As of March 2018, there were 1,584 residents of Waterloo Wellington LHIN on the waitlist waiting for placement in an Ontario Long-Term Care home (not including patients awaiting transfer from one LTC home to another).

### Long-Stay Demand

- As of March 2018, there were 3,999 long-stay residents occupying LTC Homes within Waterloo Wellington LHIN.
- When adjusted for the size of the older population, Waterloo Wellington LHIN has approximately 83 Long-Stay beds per 1,000 people aged 75+.
- The gap between the Demand and Supply of Long-Term Care Homes in Waterloo Wellington LHIN reflects a shortage of approximately 1,521 Long-Stay beds
  - The largest gap is in the [Kitchener-Waterloo-Wilmot-Wellesley-Woolwich](#) sub-region (749 beds) and the smallest is in [Wellington](#) (172 beds).

### Selected Characteristics of Long-Term Care Home Residents

- In Waterloo Wellington LHIN, 82% of Residents were over the age of 75 with 56% being over the age of 85.
- In 2016/17, the mean age of residents of LTC Homes in Waterloo Wellington LHIN was 83.
- The mean length of stay for residents of LTC Homes in Waterloo Wellington LHIN was 795 days (about 2.2 years) with half of residents remaining in LTC homes for less than 496 days.

- Nearly 84% of residents need extensive help with daily activities such as getting out of bed, eating, or toileting; 25% are highly or entirely dependent on staff.
- 85% have some form of cognitive impairment; 25% are severely impaired.
- 51% exhibit some level of aggressive behaviour related to their cognitive impairment or mental health condition with 7% exhibiting very severe aggressive behavior.
- 68% of active LTC Residents in Waterloo Wellington LHIN LTC Homes have been identified as having some form of dementia.

### Long-term care home supply, waitlists and placements, and resident characteristics, by LHIN sub-region

	Waterloo-Wellington LHIN		0301		0302		0303		0304	
			Grey Bruce		Guelph-Puslinch		Cambridge-North Dumfries		Kitchener-Waterloo-Wilmot-Wellesley-Woolwich	
Long-term care bed supply in the sub-region (February 2018)	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-term care homes	36		5		8		16		7	
	4,110	83.5	637	69.8	839	98.0	1,992	80.1		96.2
Long-stay beds									642	
Short-stay, respite & convalescent care beds	32	0.7	0	0	2	0.2	28	1.1	2	0.3
	4,142	84.1	637	69.8	841	98.2	2,020	81.2		96.5
Total beds in operation									644	

*†The denominator for the rate calculation refers to the number of sub-region residents age 75+; however the LTC homes/beds may serve individuals from other sub-regions. Therefore, rates should be interpreted with caution.*

	Waterloo-Wellington LHIN		0301		0302		0303		0304	
			Grey Bruce		Guelph-Puslinch		Cambridge-North Dumfries		Kitchener-Waterloo-Wilmot-Wellesley-Woolwich	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Long-stay waitlist without transfer patients*	1,632	33.2	416	45.6	214	25.0	789	31.7	213	31.9
Placements**										
From community	1,115	78.5%	152	77.9%	247	77.7%	568	85.3%	148	61.4%
From hospital	194	13.7%	26	13.3%	44	13.8%	55	8.3%	69	28.6%
Total	1,420		195		318		666		241	

	Waterloo-Wellington LHIN		0301		0302		0303		0304	
			Grey Bruce		Guelph-Puslinch		Cambridge-North Dumfries		Kitchener-Waterloo-Wilmot-Wellesley-Woolwich	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Median time to placement (days)</b>										
From community	135		238.0		133.0		138.0		93.5	
From hospital	70		203.0		53.0		72.0		55.0	
Total	120		226.0		112.0		132.5		78.0	
<b>By sub-region of patient (patients who reside within the sub-region and are awaiting placement in any home)</b>										
Long-stay waitlist without transfer patients*	1,584	32.2	409	44.8	207	24.2	767	30.8	201	30.1
<b>Placements**</b>										
From community	1,097	78.7%	187	70.8%	230	84.9%	562	85.2%	118	59.3%
From hospital	185	13.3%	49	18.6%	24	8.9%	49	7.4%	63	31.7%
Total	1,394		264		271		660		199	
<b>Median time to placement (days)</b>										
From community	135		190.0		120.5		137.5		87.5	
From hospital	71		104.0		90.5		69.0		47.0	
Total	119		159.5		112.0		130.0		74.0	

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents

Placements from other locations (correctional facilities, homeless, out-of-province) are not shown but are included in the total placement values.

	Waterloo-Wellington LHIN		0301		0302		0303		0304	
			Grey Bruce		Guelph-Puslinch		Cambridge-North Dumfries		Kitchener-Waterloo-Wilmot-Wellesley-Woolwich	
Long-stay demand (February / March 2018) for LTC homes in the sub-region	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-stay residents	3,999	81.2	624	68.4	822	96.0	1,952	78.5	601	90.1
Long-stay waitlist without transfer patients	1,632	33.2	416	45.6	214	25.0	789	31.7	213	31.9
Total demand	5,631	114.4	1,040	114.0	1,036	121.0	2,741	110.2	814	122.0
Total long-stay supply	4,110	83	637	69.8	839	98.0	1,992	80.1	642	96.2
Difference between supply and demand	1,521	31	403	44.2	197	23.0	749	30.1	172	25.8

	Waterloo-Wellington LHIN		0301		0302		0303		0304	
			Grey Bruce		Guelph-Puslinch		Cambridge-North Dumfries		Kitchener-Waterloo-Wilmot-Wellesley-Woolwich	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Demography, volume and length of stay (LOS)</b>										
Active LTC Residents*	3,768	76.5	587	64.4	784	91.6	1,823	73.3	574	86.0
Number of admissions*	1,606	32.6	243	26.6	314	36.7	768	30.9	281	42.1
<b>By age group**</b>										
Residents age <65	259	6.9%	37	6.3%	45	5.7%	132	7.2%	45	7.8%
Residents age 65-74	432	11.5%	71	12.1%	91	11.6%	198	10.9%	72	12.5%
Residents age 75-84	972	25.8%	141	24.0%	212	27.0%	472	25.9%	147	25.6%

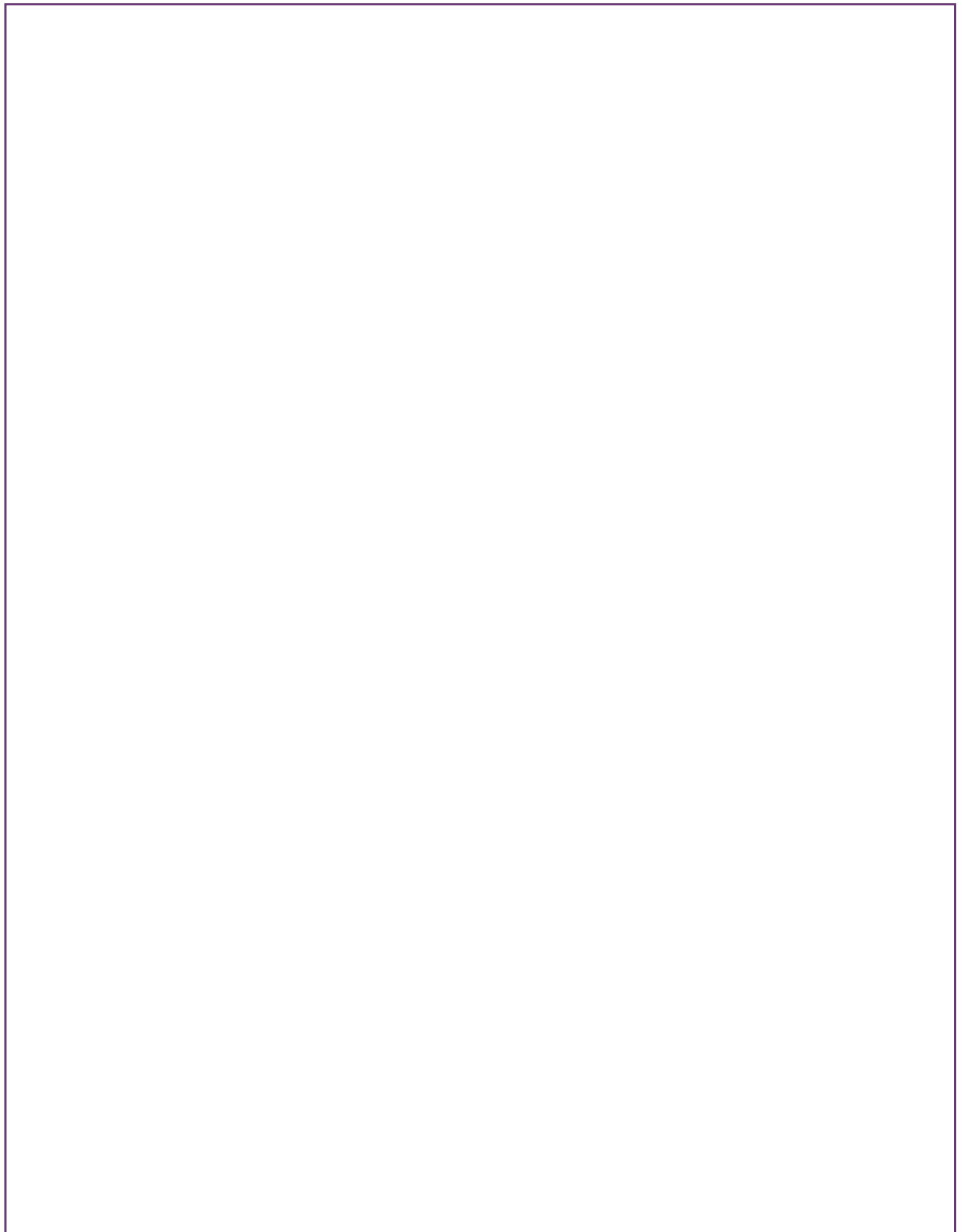


	Waterloo-Wellington LHIN		0301		0302		0303		0304	
			Grey Bruce		Guelph-Puslinch		Cambridge-North Dumfries		Kitchener-Waterloo-Wilmot-Wellesley-Woolwich	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Residents age 85+	2,105	55.9%	338	57.6%	436	55.6%	1,021	56.0%	310	54.0%
Mean age of residents	83		84		84		83		83	
Mean age of residents at admission	84		84		84		83		83	
<b>Length of stay</b>										
Mean LOS (days)	795		805		943		747		756	
Median LOS (days)	496		606		720		425		435	
<b>Residents by level of ADL assistance required**</b>										
None or limited assistance required	607	16.1%	130	22.1%	106	13.5%	249	13.7%	122	21.3%
Extensive assistance required	2,233	59.3%	303	51.6%	457	58.3%	1,127	61.8%	346	60.3%
Dependent	928	24.6%	154	26.2%	221	28.2%	447	24.5%	106	18.5%
<b>Residents by level of aggressive behaviour**</b>										
No signs of aggressive behaviour	1,857	49.3%	261	44.5%	381	48.6%	940	51.6%	275	47.9%
Some signs of aggressive behaviour	1,007	26.7%	140	23.9%	209	26.7%	495	27.2%	163	28.4%
Moderate to severe aggressive behaviour	652	17.3%	135	23.0%	129	16.5%	279	15.3%	109	19.0%
Very severe aggressive behaviour	252	6.7%	51	8.7%	65	8.3%	109	6.0%	27	4.7%
<b>Cognitive impairment categories **</b>										

	Waterloo- Wellington LHIN		0301		0302		0303		0304	
			Grey Bruce		Guelph-Puslinch		Cambridge-North Dumfries		Kitchener- Waterloo- Wilmot- Wellesley- Woolwich	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Relatively intact	581	15.4%	67	11.4%	123	15.7%	253	13.9%	138	24.0%
Mild impairment	2,260	60.0%	330	56.2%	496	63.3%	1,123	61.6%	311	54.2%
Severe impairment	927	24.6%	190	32.4%	165	21.0%	447	24.5%	125	21.8%
<b>RUG categories **</b>										
1 Extensive Services	130	3.5%	22	3.7%	22	2.8%	77	4.2%	9	1.6%
2 Special Rehabilitation	153	4.1%	26	4.4%	45	5.7%	62	3.4%	20	3.5%
3 Special Care	533	14.1%	93	15.8%	92	11.7%	270	14.8%	78	13.6%
4 Clinically Complex	915	24.3%	141	24.0%	192	24.5%	428	23.5%	154	26.8%
5 Impaired Cognition	429	11.4%	79	13.5%	76	9.7%	218	12.0%	56	9.8%
6 Behavioural Problems	47	1.2%	11	1.9%	7	0.9%	21	1.2%	8	1.4%
7 Reduced Physical Functions	1,561	41.4%	215	36.6%	350	44.6%	747	41.0%	249	43.4%
<b>Residents with Dementia**</b>	2,565	68.1%	396	67.5%	530	67.6%	1,250	68.6%	389	67.8%

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents





## 4. Hamilton Niagara Haldimand Brant LHIN



## Contents

<b>4. Hamilton Niagara Haldimand Brant LHIN</b>	<b>1</b>
<b>Highlights</b>	<b>1</b>
HNHB LHIN	1
Residents of HNHB LHIN Sub-Regions	3
<b>Population Characteristics</b>	<b>9</b>
Population Estimates	9
2016 Census Profile	10
Births and Mortality	17
General Health, Risk Factors, and Prevention	21
Chronic Conditions	23
<b>Human Resources</b>	<b>37</b>
<b>Primary Care</b>	<b>40</b>
Primary Care Enrolment	40
Selected Measures from the Health Care Experience Survey	40
<b>Community Care</b>	<b>42</b>
<b>Mental Health</b>	<b>43</b>
Wait Time for Community Services	43
Mental Health and Substance Abuse Emergency Department Visits	43
Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility	44
<b>Surgery &amp; Diagnostic Imaging</b>	<b>46</b>
Day Surgery and Cardiac Catheterization Utilization	46
Surgical & Diagnostic Imaging Wait Times	47
<b>Oncology and Dialysis</b>	<b>56</b>
<b>Home Care</b>	<b>59</b>
<b>Palliative Care</b>	<b>62</b>
<b>Emergency Department</b>	<b>65</b>
Emergency Department Utilization	65
Emergency Department Performance	70
<b>Acute Care</b>	<b>72</b>
Acute Care Utilization by Residents of the HNHB LHIN	72
Acute Care Utilization for HNHB LHIN Facilities	73
Acute Care Inflow/Outflow	75
<b>Post-Acute Care</b>	<b>76</b>
Inpatient Rehabilitation Utilization	76
Complex Continuing Care Utilization	79
<b>Alternate Level of Care</b>	<b>80</b>
Closed ALC Cases	81
Open ALC Cases	81
Hospital Processes and Capacity	82
<b>Long-Term Care</b>	<b>85</b>

## Highlights

Comprehensive information about population demographics, health status, health outcomes, chronic conditions, human resources, primary care, health service utilization, and long-term care in the HNHB LHIN can be found under the content headings of in the remainder of this document, beginning with the socio-demographic profile. This Highlights introduction is intended to provide a guide to areas in which either the HNHB LHIN or one of its sub-regions is significantly different from the province as a whole. Sub-region comparisons within this section are always to the other 75<sup>1</sup> sub-regions across the province, and LHIN comparisons are always to the other 13 LHINs.

### HNHB LHIN

#### Population Characteristics

- The HNHB LHIN had the **lowest** volume of CSS\_Community Visits- Non Face to Face Visits per 1,000 population 75+.
- Hamilton Niagara Haldimand Brant LHIN hospitals had the **largest** decrease in number of day surgery and ambulatory cardiac catheterization visits between 2013/14 and 2016/17.
- Hamilton Niagara Haldimand Brant LHIN residents had the **only** decrease in day surgery and ambulatory cardiac catheterization visits.
- In 2017/18, the HNHB LHIN had the **highest** rate of home care service hours per 1,000 population.
- Residents of the HNHB had the 2<sup>nd</sup> highest CCC active case rate in 2016/17.

#### Strengths

- HNHB had the **highest** percentage of residents reporting that they have a regular medical doctor, **significantly higher** than the Ontario percentage.
- In FY 17/18, **Hamilton** Health Sciences - McMaster site (HNHB LHIN) had the **highest** ALC throughput ratio.
- The HNHB LHIN had the **lowest** percentage of residents who went to the ED for something that could have been treated by primary care provider.
- The HNHB LHIN had the **lowest** percentage of residents with difficulty accessing after-hours care without going to the ED.
- Residents of HNHB LHIN had a **significantly lower** rate of unplanned ED visits in the last 30 days of life than Ontario.
- The HNHB LHIN had the **lowest** percentage of patients with two or more acute inpatient admissions in the last 30 days of life, **significantly lower** than the province as a whole.

#### Challenges/Opportunities

- HNHB's prevalence rate for both residents with one or more chronic conditions and for was residents with two or more chronic conditions **significantly higher** than Ontario's.
- HNHB LHIN had the highest potential years of life lost in the province.
- HNHB residents had the **highest** rate of emergency department utilization for opioid overdose in 2016/17, as well as the highest proportion that were accidental.
- In 2017/18, 90<sup>th</sup> percentile wait time for cancer surgery was **longest** in the **Hamilton Niagara Haldimand Brant** LHIN.

---

<sup>1</sup> Or however many sub-regions have reported data across the province.

- In 2017/18, emergency departments in HNHB LHIN had the **longest** ambulance offload time.
- Emergency department length of stay for all patients was **longest** in HNHB LHIN hospitals.
- Hospitals in the HNHB LHIN had the **lowest** percentage of patients admitted to an inpatient bed within the target of 8 hours.



## Residents of HNHB LHIN Sub-Regions

### HAMILTON SUB-REGION HIGHLIGHTS

#### Population Characteristics

- **Highest** population of all Ontario sub-regions, and a larger population than the North West, North Simcoe Muskoka, and South East LHINs.
- In 2017/18, Hamilton was among the 8 sub-regions with the highest service hour rates per 1,000 population for personal support.

#### Strengths

- 8<sup>th</sup> lowest percentage of residents who found it difficult to access care after-hours without going to an emergency department

#### Challenges/Opportunities

- Prevalence rate for arthritis was **significantly higher** than Ontario.
- Prevalence rate for heart disease was **significantly higher** than Ontario.

## BURLINGTON SUB-REGION HIGHLIGHTS

### Population Characteristics

- 5<sup>th</sup> lowest percentage of residents age 25-64 with less than high school.
- 8<sup>th</sup> highest mean age at the birth of first infant.
- 7<sup>th</sup> lowest multiple live birth rate in the province.

### Strengths

- 7<sup>th</sup> lowest percentage population living below the low-income measure.
- 5<sup>th</sup> lowest percentage of children under 6 living in low-income households.
- 6<sup>th</sup> lowest percentage of children under 18 living in low-income households.
- 5<sup>th</sup> lowest percentage of seniors (65+) living in low-income households.
- 8<sup>th</sup> lowest percentage of residents age 15+ who were unemployed.
- 3<sup>rd</sup> lowest pre-term birth rate in the province.
- **Significantly lower** (better) rates than **Ontario** of both physical inactivity and of residents consuming fewer than 5 servings of fruit and vegetable per day.
- 3<sup>rd</sup> lowest low birth weight rate in the province.
- Tied for the 8<sup>th</sup> lowest full-term low birth weight rates in the province.
- **Burlington's** percentage of residents reporting that they have a regular medical doctor was **significantly higher** than the Ontario percentage.
- 5<sup>th</sup> highest percentage of residents who report satisfaction with health care in their community.
- **Lowest** percentage of residents who found it difficult to access care after-hours without going to an emergency department

### Challenges/Opportunities

- In 2017/18, residents of **Burlington** waited the 4<sup>th</sup> longest before being discharged from hospital with an ALC designation (closed cases).

## NIAGARA NORTH WEST SUB-REGION HIGHLIGHTS

### Population Characteristics

- 3<sup>rd</sup> highest rate of palliative home visits in the last 90 days of life in 2016/17.
- 6<sup>th</sup> lowest rehabilitation admission rate per 100,000 population in FY16/17.

### Strengths

- 4<sup>th</sup> lowest percentage population living below the low-income measure.
- 3<sup>rd</sup> lowest percentage of children under 6 living in low-income households.
- 3<sup>rd</sup> lowest percentage of children under 18 living in low-income households.
- 7<sup>th</sup> lowest percentage of seniors (65+) living in low-income households.
- 3<sup>rd</sup> lowest percentage of residents age 15+ who were unemployed.
- Niagara North West residents had the 6<sup>th</sup> lowest ED visit rate per 1,000 population for MH/SA conditions (main problem diagnosis).
- 6<sup>th</sup> lowest inpatient rehabilitation admission rate in the province.
- Residents of **Niagara North West** had the **lowest** mental health active case rate per 100,000 population age 15+.

### Challenges/Opportunities

- **Niagara North West** had a **significantly higher** rates of *overweight or obesity* than Ontario.

## NIAGARA SUB-REGION HIGHLIGHTS

### Population Characteristics

- 8<sup>th</sup> highest population among all Ontario sub-regions.
- 2<sup>nd</sup> highest CCC active case rate.

### Strengths

- Among the 8 sub-regions with the lowest mean cost per complex patient.
- At the end of 2017/18, residents of **Niagara** had had the 5<sup>th</sup> shortest wait to date for discharge from an ALC designation in hospital (open cases).

### Challenges/Opportunities

- Prevalence rate for arthritis was **significantly higher** than Ontario.
- **Niagara** was among the 8 sub-regions with the highest percentage of complex patients (4+ conditions).

## BRANT SUB-REGION HIGHLIGHTS

### Population Characteristics

- According to the census, Brant had the 6<sup>th</sup> greatest decrease in population between 2011 and 2016.
- 2<sup>nd</sup> lowest percentage of patients who receive palliative care who died in hospital in 2016/17 (tied with Halton Hills).
- 3<sup>rd</sup> lowest percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days.
- 7<sup>th</sup> highest CCC active case rate.
- 8<sup>th</sup> longest rehabilitation length of stay.

### Strengths

- 5<sup>th</sup> lowest full-term low birth weight rates in the province.
- 4<sup>th</sup> lowest percent of residents with one or more unplanned ED visits in the last 30 days of life.
- 3<sup>rd</sup> lowest percentage of patients with two or more acute inpatient admissions in the last 30 days of life.

### Challenges/Opportunities

- Compared to Ontario, **significantly higher** smoking rates were found in the Brant sub-region.
- **Significantly higher** rates of *overweight or obesity* than Ontario.
- **Significantly higher** rates of obesity than Ontario.
- Among the 8 sub-regions with the highest hospitalization rates for chronic obstructive pulmonary disease, hypertension, and lower respiratory disease.
- 8<sup>th</sup> highest mean length of stay for inpatient rehabilitation.

## HALDIMAND NORFOLK SUB-REGION SUMMARY

### Population Characteristics

- 4<sup>th</sup> lowest percentage of residents who meet the new inclusive definition of Francophone.
- 7<sup>th</sup> highest percentage of residents age 25-64 with post-secondary education below bachelor's degree.
- 6<sup>th</sup> lowest percentage of residents age 25-64 with bachelor's degree completion and beyond.
- 5<sup>th</sup> highest CCC active case rate.
- 7<sup>th</sup> lowest rehabilitation admission rate per 100,000 population in FY16/17.

### Strengths

- 8<sup>th</sup> lowest full-term low birth weight rates in the province.
- 4<sup>th</sup> lowest “small for gestational age” rate in the province.
- Haldimand Norfolk’s percentage of residents reporting that they have a regular medical doctor was **significantly higher** than the Ontario percentage.
- 7<sup>th</sup> lowest inpatient rehabilitation admission rate in the province.

### Challenges/Opportunities

- **Significantly higher** of overweight or obesity than Ontario.
- **Significantly higher** rates of obesity than Ontario.
- The prevalence rate for the population with arthritis was **significantly higher** than Ontario.
- The prevalence rate for the population with high blood pressure was **significantly higher** than Ontario.
- In 2017/18, residents of Haldimand Norfolk waited the 8<sup>th</sup> longest before being discharged from hospital with an ALC designation (closed cases).

## Population Characteristics

### Population Estimates<sup>2</sup>

- As of 2016, the population of the Hamilton Niagara Haldimand Brant LHIN is estimated to be 1,460,700, a 4.5% increase over 2011.
  - The populations 65 and over and 75 and over represent 19.1% and 8.6% of the total population respectively.
- The population of the Hamilton Niagara Haldimand Brant LHIN is projected to increase by 5.6% by 2021 and by 10.5% by 2026.

### Population Estimates from 2016 Census and Ministry of Finance

	Ontario	HNHB	Comments†
2011 Census, total population	12,851,821	1,358,821	
2016 Census, total population	13,448,494	1,399,080	
Population growth between 2011 and 2016 (based on Census)	4.6%	3.0%	
Estimated population, 2011	13,263,544	1,397,535	
<b>Estimated population, 2016</b>	<b>13,982,984</b>	<b>1,460,700</b>	
% population age 65+	16.38%		
% population age 75+	7.17%		
<b>% population change estimated 2011-2016</b>	<b>5.4%</b>	<b>4.5%</b>	
Projected population, 2021	14,980,422	1,541,956	
Projected population, 2026	15,822,463	1,614,152	
% changes (based on changes from the 2016 estimates)			
% population change forecasted 2016-2021	7.1%	5.6%	
% population change forecasted 2016-2026	13.2%	10.5%	

Sub-Region Name	Total population	Age 65plus	% 65+	Age 75plus	% 75+
<b>Hamilton</b>	561,022	93,972	16.75%	42,934	7.65%
<b>Burlington</b>	201,216	37,423	18.60%	17,376	8.64%
<b>Niagara North West</b>	64,309	12,081	18.79%	5,237	8.14%
<b>Niagara</b>	389,508	83,302	21.39%	37,995	9.75%
<b>Brant</b>	146,557	24,595	16.78%	10,602	7.23%
<b>Haldimand Norfolk</b>	111,954	23,143	20.67%	9,729	8.69%

<sup>2</sup> Please see note in Ontario chapter on Census versus Ministry of Finance estimates.

### Census Demographics

- 15.9% of the population was in the age group 0-14 and 64.9% was in the age group 15-64.
- The dependency ratio in HNHB at 69.4 was greater than the province (64.5).
- The largest proportion of HNHB's population (66.0%) lived in large urban communities.
- 20.2% of HNHB's population lived in medium/small population centre communities.
- 11.4% of HNHB's population lived in rural or small communities adjacent to urban areas.
- The smallest proportion of HNHB's population (2.4%) lived in rural and small town communities.
- HNHB's land mass measures 6,474 square kilometres making it the 9<sup>th</sup> largest LHIN in the province.
- HNHB's population density was 216.1 persons per square kilometre making it the 5<sup>th</sup> most densely populated LHIN in the province.

### Households

- In 2016, 239,300 families with children were living within the **Hamilton Niagara Haldimand Brant** LHIN. 29.5% of those families were lone parent.
  - By sub-region, **Niagara** had the highest rate of lone-parent families (33.3%) and **Burlington** had the lowest (20.2%).
  - By sub-region and household size, **Niagara** had the highest rate of one person households (29.1%) and **Burlington** had the lowest (19.7%)
  - By sub-region and household size, **Burlington** had the highest rate of 5 or more person households (10.3%) and **Niagara** had the lowest (6.7%).
- In 2016, 249,130 households contained one or more family members aged 65 years and over. 25.5% of those individuals were living alone.
  - By sub-region, **Hamilton** had the highest rate of seniors living alone (26.6%) and **Burlington** had the lowest (19.7%).
- The total number of owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio was 553,500. 24.7% of those households spent 30% or more of their income on rent or payments.
  - By sub-region, **Hamilton** had the highest rate (26.1%) and **Burlington** had the lowest (17.8%).
- The total number of private households was 558,145. 72.2% of those were owner occupied, 27.8% were rented, and less than 0.1% were band housing.
  - By sub-region and owner occupation rate, **Burlington** had the highest rate (87.1%) with **Hamilton** being the lowest (67.6%).
- 6.4% of the private households in Hamilton Niagara Haldimand Brant were in need of major repair.
  - By sub-region and housing in need of repair rate, **Hamilton** had the highest rate (7%) and **Burlington** had the lowest (4.4%).
- 3.8% of the private households in the HNHB LHIN had an insufficient number of bedrooms to accommodate the household makeup.
  - By sub-region and housing suitability, **Hamilton** had the highest rate of unsuitable housing (5.2%) and **Burlington** had the lowest (2.3%).

### Language

- Just over 81% of the population reported English and 2.1% reported French as their mother tongue in Hamilton Niagara Haldimand Brant LHIN.
  - By sub-region, **Haldimand Norfolk** had the highest proportion (89.8%) and **Hamilton** had the lowest proportion of residents who identified English as their mother tongue (75.6%).



- By sub-region, **Niagara** had the highest proportion (3.6%) and **Haldimand Norfolk** had the lowest proportion of residents who identified French as their mother tongue (1.1%).
- In 2016, 2.3% of HNHB residents were Francophone under the 2009 new Inclusive Definition of Francophone.
  - By sub-region, **Niagara** had the highest proportion of Francophone residents (3.8%) and **Haldimand Norfolk** had the lowest (1.1%).
- 1.1% of the LHIN's population reported no knowledge of either official language.
  - By sub-region, **Hamilton** reported the highest proportion of residents with no knowledge of English or French (1.8%) and **Burlington** had the lowest (0.3%).
- English was the most common language spoken at home (88.7%), followed by English and a non-official language (3.2%), Spanish (0.6%), Italian (0.6%) and Arabic (0.6%).

### Income

- In the Hamilton Niagara Haldimand Brant LHIN, 13.5% of the population lived on low income, based on the after-tax low income measure (LIM-AT).
  - The proportion of residents living below the low income measure varied by sub-region, from 6.7% in the **Burlington** sub-region to 15.8% in the **Niagara** sub-region.
  - The proportion of households in the highest income quintile varied across sub-regions in the **Hamilton Niagara Haldimand Brant** LHIN, from 15.4% in the **Niagara** sub-region to 33.8% in the **Burlington** sub-region.
- In the Hamilton Niagara Haldimand Brant LHIN, 19.4% of children under the age of 6 lived in low income households.
  - By sub-region, children living in low income households ranged from 7.2% in the **Burlington** sub-region to 24.2% in the **Niagara** sub-region.
- The proportion of households in the lowest income quintile ranged across sub-regions in the Hamilton Niagara Haldimand Brant LHIN, from 10.0% in the **Burlington** sub-region to 22.0% in the **Niagara** sub-region.

### Immigration

- In 2016, immigrants accounted for 19.7% of the HNHB LHIN population. From 1980 to 2016, 41.6% of immigrants were admitted as economic immigrants, 32.6% were sponsored by family and 24.2% were admitted as refugees. 1.7% of HNHB LHIN residents were **recent immigrants**, having arrived in Canada between 2011 and 2016. Of the recent immigrants, the highest proportion (10.1%) came from the Philippines, followed by India (8.9%).
  - Among the six HNHB LHIN sub-regions, the percentage of immigrants ranged from 9.8% in **Haldimand Norfolk** to 24.7% in **Hamilton**.
  - The percentage of recent immigrants ranged from 0.4% in **Haldimand Norfolk** to 2.5% in **Hamilton**.
- In 2016, 21.0% of the HNHB LHIN population were **first generation Canadians**.
  - Among the six HNHB LHIN sub-regions, the percentage of first generation Canadians ranged from 10.3% in **Haldimand Norfolk** to 26.2% in **Hamilton**.

### Visible Minorities

- In 2016, 13.1% of the HNHB LHIN population was a visible minority.
  - Among the six HNHB LHIN sub-regions, the percentage of visible minorities ranged from 2.1% in **Haldimand Norfolk** to 19.0% in **Hamilton**.

### Indigenous (Aboriginal) Identity

- 2.7% of the HNHB LHIN's residents identified as Aboriginal, with 1.8% identifying as First Nations and 0.7% as Métis.
  - Among the six HNHB LHIN sub-regions, the percentage of residents reporting Aboriginal identity ranged from 1.1% in [Burlington](#) to 4.8% in [Brant](#).

### Education

- In 2016, 23.8% of Hamilton Niagara Haldimand Brant LHIN residents of working age had completed post-secondary education, ranking 8<sup>th</sup> across the province.
  - Across Hamilton Niagara Haldimand Brant sub-regions, the percentage of the population with less than high school ranged from 5.1% in [Burlington](#) to 14.6% in [Haldimand Norfolk](#).
  - The percentage of the population with high school completion ranged from 21.4% in [Burlington](#) to 30.6% in [Haldimand Norfolk](#).
  - The percentage of the population with post-secondary education below bachelor's degree ranged from 34.8% in [Burlington](#) to 42.7% in [Haldimand Norfolk](#).
  - The percentage of the population with bachelor's degree completion and beyond ranged from 12.0% in [Haldimand Norfolk](#) to 38.7% in [Burlington](#).

### Labour Force Participation

- The labour force participation rate among persons aged 15+ was 63%, lower than the rate for Ontario (65%). The unemployment rate for HNHB LHIN was 6.8%, the 3<sup>rd</sup> lowest of all the LHINs.
- Of those employed in 2016, 35% of HNHB LHIN residents had a commute time from their residence to their place of work of 30 minutes or more, while 17.9% had a commute time of 45 minutes or more.

2016 Census Profile	Ontario	HNHB	Comments†
<b>Census Population 2016</b>			
Dependency ratio (number of "dependents" for every 100 "workers")	64.5	69.4	
<b>Urban-Rural Gradient</b>			
% large urban	68.1%	66.0%	
% medium/small population centre	14.7%	20.2%	
% rural or small communities adjacent to urban areas	8.4%	11.4%	
% rural and small town	8.8%	2.4%	
Land Area (sq km)	908,699	6,474	
Population Density (persons per square kilometre)	14.8	216.1	
<b>Population by Household and Families</b>			
% of people age 65+ living alone	23.5%	25.5%	
% of dwellings in need of major repairs	6.1%	6.4%	
% of households with an insufficient # of bedrooms	6.0%	3.8%	
<b>Language</b>			
% who report English as their mother tongue	69.5%	81.1%	
% who report French as their mother tongue	4.3%	2.1%	
% with no knowledge of English or French	2.5%	1.1%	
% Francophone (IDF)	4.7%	2.3%	
<b>Population (in Private Households) Living in Low Income</b>			
% Population living below low-income measure (LIM-AT)	14.4%	13.5%	
% Children living in low income households/LIM (age<6)	19.8%	19.4%	
% Children living in low income households/LIM (age<18)	18.4%	18.0%	
% Seniors living in low income households/LIM (age 65+)	12.0%	10.6%	
<b>Immigration</b>			
% of population who are immigrants	29.1%	19.7%	
% of population who arrived within 5 years	3.6%	1.7%	
% first generation Canadian (children of immigrants)	31.1%	21.0%	
<b>Visible Minorities</b>			
% of population who are visible minorities	29.3%	13.1%	
<b>Indigenous Identity</b>			
% of population of Aboriginal identity	2.8%	2.7%	
% population First Nations identity	1.8%	1.8%	
% population Metis identity	0.9%	0.7%	
% population Inuk identity	0.0%	0.0%	
% Multiple Aboriginal responses	0.0%	0.0%	
% Aboriginal responses not included elsewhere	0.1%	0.1%	
<b>Educational Attainment</b>			
% Population age 25-64 with less than high school	10.4%	10.8%	
% Population age 25-64 with high school completion	24.5%	27.4%	
% Population age 25-64 with post-secondary education below bachelor's degree	33.2%	38.0%	
% Population age 25-64 with bachelor's degree completion and beyond	31.9%	23.8%	
<b>Labour Force Activity</b>			
% In the labour force (Participation rate)	64.7%	63.2%	
% Unemployed	7.4%	6.8%	
% 60 minutes and over commuting duration	12.4%	10.1%	

†Ranking in the province, compared to other LHINs.

## Sub-Region Profiles, 2016 Census

Sub-Region	Hamilton	Burlington	Niagara North West	Niagara	Brant	Haldimand Norfolk
<b>Census Population 2016</b>						
Dependency ratio (number of "dependents" for every 100 "workers")	65.3	72.0	75.4	72.1	70.3	74.1
<b>Urban-Rural Gradient</b>						
% large urban	91.5%	96.9%	37.9%	60.0%	0.0%	0.0%
% medium/small population centre	2.0%	0.0%	24.2%	30.1%	84.8%	25.9%
% rural or small communities adjacent to urban areas	6.5%	3.1%	24.1%	10.0%	15.2%	51.3%
% rural and small town	0.0%	0.0%	13.7%	0.0%	0.0%	22.9%
Land Area (sq km)	1,117	186	620	1,235	1,104	2,884
Population Density (persons per square kilometre)	480.6	987.3	105.9	309.6	121.6	38.3
<b>Population by Household and Families</b>						
% of people age 65+ living alone	26.6%	24.6%	19.7%	26.3%	25.2%	22.9%
% Of dwellings in need of major repairs	7.0%	4.4%	4.8%	6.6%	6.8%	6.6%
% of households with an insufficient # of bedrooms	5.2%	2.9%	2.3%	3.1%	3.3%	2.8%
<b>Language</b>						
% who report English as their mother tongue	75.6%	80.5%	87.7%	82.6%	88.9%	89.8%
% who report French as their mother tongue	1.6%	2.0%	1.3%	3.6%	1.2%	1.1%
% with no knowledge of English or French	1.8%	0.8%	0.3%	0.7%	0.6%	0.7%
% Francophone	1.8%	2.3%	1.3%	3.8%	1.2%	1.1%
<b>Population (in Private Households) Living in Low Income</b>						
% Population living below low-income measure (LIM-AT)	15.3%	7.3%	6.7%	15.8%	13.3%	11.7%
% Children living in low income households/LIM (age<6)	22.9%	8.5%	7.2%	24.2%	18.9%	15.5%
% Children living in low income households/LIM (age<18)	21.0%	9.3%	7.6%	21.5%	17.3%	14.1%
% seniors living in low income households/LIM (age 65+)	11.6%	7.0%	7.3%	11.4%	11.0%	11.3%
<b>Population by Income Quintiles</b>						
% Economic families in Income quintile 1 - lowest income	20.6%	10.5%	10.0%	22.0%	18.7%	17.1%
% Economic families in Income quintile 2	19.2%	14.0%	16.8%	22.2%	21.7%	22.0%
% Economic families in Income quintile 3	19.6%	18.1%	21.6%	21.2%	21.6%	22.2%
% Economic families in Income quintile 4	20.9%	23.6%	26.1%	19.2%	21.3%	22.0%
% Economic families in Income quintile 5 - highest income	19.8%	33.8%	25.6%	15.4%	16.7%	16.7%

Sub-Region	Hamilton	Burlington	Niagara North West	Niagara	Brant	Haldimand Norfolk
<b>Immigration</b>						
% of population who are immigrants	24.7%	23.6%	13.9%	17.1%	12.5%	9.8%
% of population who arrived within 5 years	2.5%	2.3%	0.5%	1.3%	0.8%	0.4%
% first generation Canadian (children of immigrants)	26.2%	24.7%	14.6%	18.8%	13.2%	10.3%
<b>Visible Minorities</b>		0	0		0	0
% of population who are visible minorities	19.0%	16.0%	4.1%	9.7%	7.8%	2.1%
<b>Indigenous Identity</b>		0	0		0	0
% of population of Aboriginal identity	2.3%	1.1%	1.6%	3.0%	4.8%	3.7%
% population First Nations identity	1.6%	0.6%	1.0%	1.8%	3.8%	3.0%
% population Metis identity	0.6%	0.4%	0.4%	1.1%	0.8%	0.7%
% population Inuk identity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Multiple Aboriginal responses	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%
% Aboriginal responses not included elsewhere	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%
<b>Educational attainment</b>						
% Population age 25-64 with less than high school	12.2%	5.1%	8.0%	10.6%	13.1%	14.6%
% Population age 25-64 with high school completion	26.1%	21.4%	27.3%	30.3%	30.2%	30.6%
% Population age 25-64 with post-secondary education below bachelor's degree	36.6%	34.8%	40.9%	38.9%	40.0%	42.7%
% Population age 25-64 with bachelor's degree completion and beyond	25.0%	38.7%	23.7%	20.2%	16.7%	12.0%
<b>Labour Force Activity</b>						
% In the labour force (Participation rate)	63.2%	68.0%	67.1%	60.0%	64.8%	61.9%
% Unemployed	7.0%	5.6%	4.7%	7.9%	6.1%	6.9%
% 60 minutes and over commuting duration	11.6%	14.3%	9.9%	5.9%	8.6%	10.6%

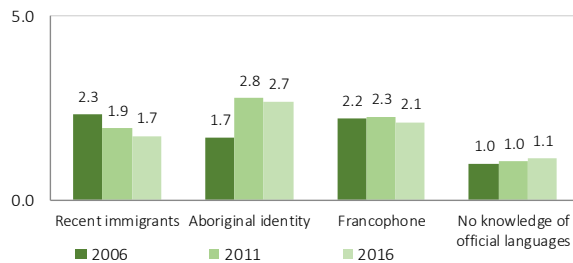
## HNHB

### 2016 Census Profile Summary

#### Number of private dwellings

2006	539,254
2011	570,164
2016	588,751

#### Immigration, identity and language (% of population)

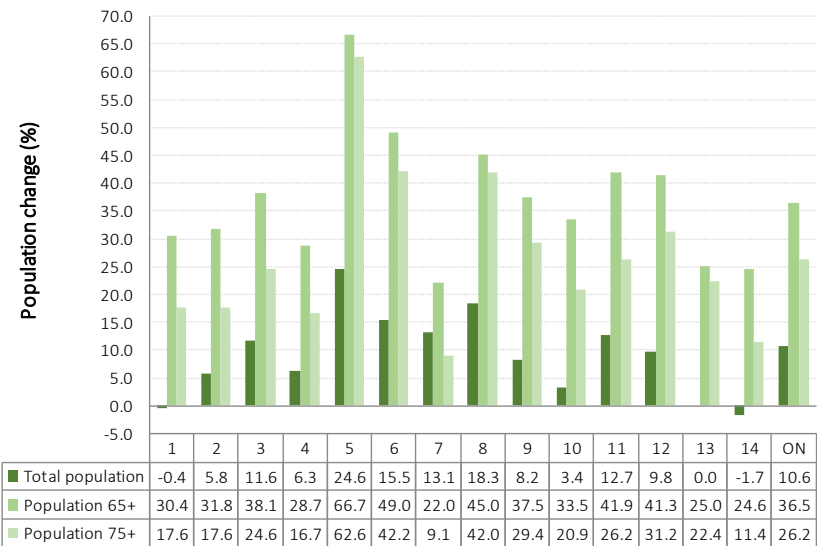


#### Population change (2006-2016)

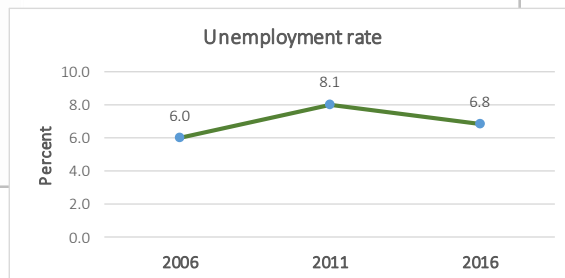
The growth of the senior (65+) population across LHINs ranged from 67% in Central West to 22% in Toronto Central.

The growth of the population age 75+ in HNHB between 2006 and 2016 was 16.7%, compared to 26.2% for the province as a whole. Total LHIN population growth was 6.3% for the same period.

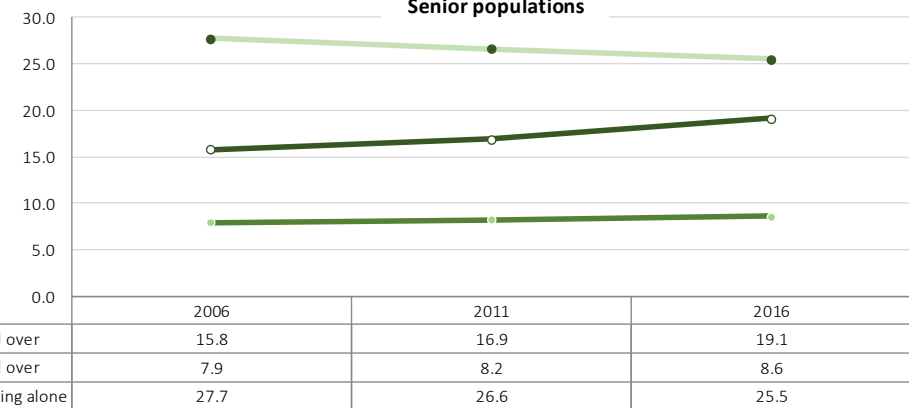
#### Population change, 2006 to 2016, by LHIN



#### Change in unemployment rate, 2006 to 2016 = 13.3%



Percent population



## Births and Mortality

### Births and Maternal Outcomes

- In FY 2016/17, there were 13,976 pregnancies and 14,219 births to HNHB women. 96% of births took place in a hospital; the remaining 4% were in the home, birth centre or other (including nursing stations, births outside of Ontario and other Ontario locations).
- In 2016, the crude birth rate (per 1,000) population in HNHB was 9.3.
- The fertility rate per 1,000 HNHB females of reproductive age (15 to 49) was 41.8.
- For teenagers (15 to 19), the fertility rate per 1,000 HNHB females was 8.0.
- In FY2016, 2.6% of women who gave birth were under 20 years of age. 19.5% of women were 35 years or older.
- In 2016, the overall mean age of mothers giving birth in this LHIN was 30.2.
- In 2016, the stillbirth rate per 1,000 live births in HNHB was 8.0.

### Multiple Births

- The multiple live birth rate per 100 live births in 2016 was 3.4.
  - By sub-region, **Burlington** had the 7<sup>th</sup> lowest multiple live birth rate in the province (2.2).

### Pre-Term Births

- In 2016, the pre-term birth rate per 100 live births was 8.0.
  - By sub-region, **Burlington** had the 3<sup>rd</sup> lowest pre-term birth rate in the province (5.3)

### Size for Gestational Age and Birth Weight

- The low birth weight rate per 100 live births was 6.1.
  - By sub-region, **Burlington** had the 3<sup>rd</sup> lowest low birth weight rate in the province (3.7).
- In 2016, the small for gestational age rate per 100 live births was 7.6.
  - By sub-region, **Haldimand Norfolk** had the 4<sup>th</sup> lowest small for gestational age rate in the province (5.5).
- In 2016, the large for gestational age rate per 100 live births was 12.1.

### Attendants, Assisted Delivery & Epidural Anaesthesia during Labour

- The epidural rate for vaginal deliveries was 63.3. Epidural rate for all deliveries was 53.9.
- Among vaginal deliveries, the overall assisted delivery rate for HNHB women was 11.8. The assisted delivery rate using vacuum extraction and forces was 9.2 and 2.1, respectively.
- In HNHB, 72.8% of hospital births were attended by an obstetrician. 12.2% were attended by a health care provider other than an obstetrician, family doctor or midwife.

### Caesarean Deliveries

- In FY 2016/17, the total Caesarean section rate per 100 deliveries was 27.2.
- The rate of primary Caesarean section rate (the mother's first Caesarean, regardless if she had given birth vaginally before) was 18.6 per 100 deliveries. Primary Caesarean section rate was lower in women under 35 years of age (17.7) compared to those 35 and over (23.1).
- The repeat Caesarean section rate per 100 deliveries was 78.9.

### Breastfeeding

- The rate of exclusive breastfeeding at discharge among term live births was 59.9%.

## Births and Maternal Outcomes, Ontario

	HNHB	Ontario	Comments <sup>†</sup>
Total births in Ontario, LHIN of maternal residence	14,219	141,163	
Hospital	13,662	136,505	
Home	532	3,813	
Birth Centre	0	572	
Crude birth rate (per 1,000 population)	9.3	9.8	
Stillbirth rate (per 1,000 live births)	8.0	8.1	
Multiple live birth rate (per 100 live births)	3.4	3.3	
Rate of preterm birth (<37 weeks) (%) <sup>*</sup>	8.1%	8.2%	
Preterm birth rate (per 100 live births) <sup>**</sup>	8.0	8.1	
Total pregnancies in Ontario, LHIN of maternal residence	13,976	138,781	
Fertility rate (per 1,000 females of reproductive age)			
Overall rate (15 to 49)	41.8	41.2	
Teen rate (15 to 19)	8.0	6.3	
Distribution of maternal age (%)			
<20	2.6%	1.9%	
≥ 35	19.5%	23.8%	
Mean age of mother at birth of first infant	28.7	29.3	
Overall mean age of mother at birth	30.2	30.7	
Rate of Caesarean delivery (%), LHIN of hospital	27.6%	28.4%	
Total Caesarean Section Rate	27.2	28.4	
Primary Caesarean Section Rate, LHIN of patient	18.6	19.0	
Primary C-Section Rate (< 35 years)	17.7	17.9	
Primary C-Section Rate (≥ 35 years)	23.1	22.9	
Repeat Caesarean Section Rate	78.6	82.7	3 <sup>rd</sup> lowest
Epidural Rate for Vaginal Deliveries	63.3	60.3	
Epidural Rate for All Deliveries	53.9	51.0	
Assisted Delivery Rate Among Vaginal Deliveries			
Overall	11.8	12.3	
Vacuum Extraction	9.2	9.1	
Forceps	2.1	2.8	
Healthcare provider who caught the baby for hospital births (%), LHIN of hospital			
Obstetrician	72.8%	78.8%	
Family doctor	5.0%	7.4%	
Midwife	10.1%	7.4%	
Other	12.2%	6.4%	3 <sup>rd</sup> highest
Low birth weight rate (per 100 live births)	6.1	6.8	
Fullterm low birth weight rate (per 100 live births)	1.7	2.0	3 <sup>rd</sup> lowest
Births small for gestational age (%) <sup>*</sup>	7.8%	9.7%	3 <sup>rd</sup> lowest
Small for gestational age (per 100 live births) <sup>**</sup>	7.6	9.6	3 <sup>rd</sup> lowest
Births large for gestational age (%) <sup>*</sup>	12.0%	9.7%	3 <sup>rd</sup> highest
Large for gestational age (per 100 live births) <sup>**</sup>	12.1	9.8	3 <sup>rd</sup> highest
Rate of exclusive breastfeeding among term live hospital births (%), LHIN of maternal residence	59.9%	62.8%	3 <sup>rd</sup> lowest

<sup>†</sup>Ranking in the province compared to other LHINs.

<sup>†</sup>Ranking in the province compared to other LHINs.

<sup>\*</sup> As reported by BORN Ontario

<sup>\*\*</sup> As reported by Public Health Ontario



### Maternal smoking, alcohol and drug use during pregnancy among all women who live in Ontario and who had a live birth or stillbirth (LHIN of maternal residence), 2016/17 (BORN)

- In HNHB, the rate of women who self-identified as non-smokers at first prenatal visit was 87.8%. At the time of labour, 89.6% were non-smokers.
  - The prevalence of smoking 1-10 cigarettes and 10+ cigarettes at the first prenatal visit was 6.7% and 4.8%, respectively.
- 2.5% of the women reported drinking alcohol and 3.3% reported using drugs during pregnancy.

	Waterloo Wellington	Ontario	Comments <sup>†</sup>
<b>Maternal smoking at first prenatal visit (%) LHIN of maternal residence<sup>‡</sup></b>			
% women who reported smoking (0) cigarettes/day	87.8%	90.7%	
% women who reported smoking (1 – 10) cigarettes/day	6.7%	5.5%	
% women who reported smoking (10+) cigarettes/day	4.8%	3.2%	
<b>Maternal smoking at time of labour (%)</b>			
% women who reported smoking (0) cigarettes/day	89.6%	92.5%	
% women who reported smoking (1 – 10) cigarettes/day	5.7%	4.6%	
% women who reported smoking (10+) cigarettes/day	4.0%	2.6%	
Alcohol consumption during pregnancy (%)	2.5%	2.6%	
Drug and substance exposure during pregnancy (%)	3.3%	2.3%	

<sup>†</sup>Ranking in the province compared to other LHINs.

### Life Expectancy

- Life expectancy at birth for both males and females in 2012-2014 was 81 years. By sex, life expectancy at birth for males in Hamilton Niagara Haldimand Brant (HNHB) LHIN was 79 years, and 84 years for females.
- Life expectancy at age 65 for both sexes from 2012-2014 was 20 years. By sex, life expectancy at age 65 for males in HNHB LHIN was 19 years, and 22 years for females.

	Hamilton Niagara Haldimand Brant LHIN	Ontario	Rank among LHINs <sup>†</sup>
<b>Life Expectancy</b>			
Life expectancy at birth- Both Sexes 2012-14	81.3	82.3	
Life expectancy at birth- Male 2012-14	79.0	80.2	
Life expectancy at birth- Female 2012-14	83.5	84.3	
Life expectancy at age 65- Both Sexes 2012-14	20.2	20.9	
Life expectancy at age 65- Male 2012-14	18.7	19.3	
Life expectancy at age 65- Female 2012-14	21.6	22.2	

<sup>†</sup>Ranking in the province compared to other LHINs (highest and lowest 2).

### Mortality and Potential Years of Life Lost

- In 2012, 11,967 HNHB residents died, the **highest** in the province.
- The all-cause mortality rate for LHIN residents was 849 per 100, 000 population in 2012.
- Ischaemic heart disease was the leading cause of death in HNHB LHIN, followed by Dementia and Alzheimer's disease and cancer of lung and bronchus.
- 64,893 years of potential life were lost by LHIN residents in 2012, the **highest** in the province.
- The LHIN's potential years of life lost (PYLL) rate for 2012 was 5,006 per 100,000 population aged less than 75. Since 2007, the PYLL rate decreased by 7.4% for HNHB residents.

- The leading causes of PYLL in 2012 were Ischaemic heart disease, Cancer of lung and bronchus and intentional self-harm.

<sup>†</sup>Ranking in the province, compared to other LHINs.

## Mortality, Potential Years of Life Lost

	HNHB	Ontario	Rank among LHINs <sup>†</sup>	Range across HNHB sub-regions (2010-2012)
<b>Mortality, 2012</b>				
<b>Total deaths, 2012</b>	11,967	90,525	Highest	492-4,319
<b>% change in total deaths (2007-2012)</b>	3.2%	4.1%		NA
<b>All-cause mortality rate per 100,000 population</b>	848.9	675		753.4-985.1
<b>% change in all-cause mortality rate (2007-2012)</b>	0.9%	-0.7%		NA
<b>% of deaths that were premature (age &lt; 75)</b>	35.5%	37.3%	2 <sup>nd</sup> lowest	29.2%-39.5%
<b>Top 10 leading causes of death, 2012 (rates per 100,000 population)<sup>3</sup></b>				
Ischaemic heart disease	130.4	98.0		98.6-204.5
Dementia & Alzheimer's disease	70.7	55.6	2 <sup>nd</sup> highest	57.8-90.1
Cancer of lungs & bronchus	66.0	50.3		49.2-75.3
Cerebrovascular diseases	45.5	36.6		40.0-63.1
Chronic lower respiratory diseases	35.9	28.4		24.9-53.3
Cancer of colon, rectum, anus	26.9	23.4		23.3-35.6
Diabetes	28.3	20.7		21.4-44.2
Cancer of lymph, blood & related	25.3	20.0	2 <sup>nd</sup> highest	22.4-27.6
Falls	24.0	17.4	2 <sup>nd</sup> highest	16.3-26.9
Cancer of breast	19.4	14.3	2 <sup>nd</sup> highest	NA
<b>Potential years of life lost (PYLL), 2012</b>				
<b>Total PYLL, 2012</b>	64,893	551,256		5,292-24,497
<b>% change in PYLL (2007-2012)</b>	-5.3%	-0.6%		NA
<b>PYLL rate per 100,000 population (age &lt; 75)</b>	5,006	4,405		3534.3-6,387.3
<b>% change in PYLL rate (2007-2012)</b>	-7.4%	-5.0%		NA
<b>Top 10 leading causes of PYLL, 2012 (rates per 100,000 population, age &lt; 75)<sup>4</sup></b>				
Ischaemic heart disease	507.4	406.8		323.0-709.6
Cancer of lung & bronchus	387.8	322.6		271.3-484.3
Intentional self-harm	296.8	284.7		213.3-391.8
Perinatal conditions	179.4	253.3		150.0-244.9
Accidental poisoning	233.7	190.6		127.8-330.5
Transport accidents	197.3	171.8		72.7-417.9
Cancer of lymph, blood & related	167.9	149.1		NA
Cancer of breast	169.0	147.0	2 <sup>nd</sup> highest	139.0-191.5
Cirrhosis & other liver diseases	170.7	133.5		NA
Diabetes	160.2	110.9		NA

<sup>3</sup> Mean rate from 2010-2012

<sup>4</sup> Mean rate from 2010-2012

## General Health, Risk Factors, and Prevention

### General Health

- In 2015-16, 62% of Hamilton Niagara Haldimand Brant (HNHB) LHIN residents said they had very good or excellent health.
  - Compared with Ontario, only one HNHB sub-region was lower- **Haldimand Norfolk**.
- 73% reported very good or excellent mental health. The proportion declined between 2005 and 2014 in HNHB as it did in Ontario, overall.
- 20% of HNHB residents reported that most days were “quite a bit” or “extremely” stressful.

### Prevention

- 93% of HNHB residents reported having a regular medical doctor, the highest rate of Ontario LHINs, and **significantly higher** than the Ontario mean.
  - At the sub-region level, the proportion was **significantly higher** in **Burlington** and **Haldimand Norfolk**, compared to Ontario.
- 31% of residents of HNHB LHIN indicated that they received a flu shot in the year preceding the survey.

### Risk Factors

- 19% of HNHB residents reported daily or occasional smoking in 2015-16. Smoking rates have generally been declining over time.
  - Compared to Ontario, **significantly higher** smoking rates are found in the **Brant** sub-region (26%).
- 19% of adult HNHB residents reported heavy drinking. Heavy drinking is defined as having consumed 5 or more drinks for males and 4 or more drinks for women on at least one occasion at least once a month during the past year.
- In 2015-16, the majority of adult HNHB residents-65%- were either overweight or obese.
- Between 2005 and 2014, the overweight and obesity rate for HNHB increased, as it did in Ontario overall.
  - Overweight or obesity rates were **significantly higher** than Ontario in the **Hamilton, Niagara North West, Brant, and Haldimand Norfolk** sub-regions.
  - Obesity rates were **significantly higher** than Ontario (19%) in **Brant** (28%) and **Haldimand Norfolk** (25%).
- 41% of HNHB residents were physically inactive—now defined as less than 150 minutes of moderate to vigorous activity per week.
- 74% of HNHB residents did not consume enough fruits and vegetables (i.e., had fewer than 5 servings of fruits or vegetables daily) in 2015-16.
  - At the sub-region level, **Burlington** had a lower proportion of residents who did not consume enough fruits and vegetables (52%) compared to the rest of Ontario (62%).
  - Compared to Ontario, the rate of physical inactivity and the proportion of residents consuming less than 5 servings per day were **significantly lower** in **Burlington**.

## General Health, Risk Factors, and Prevention; Hamilton Niagara Haldimand Brant LHIN

	HNHB LHIN 2015-16	Ontario (2015-16)	Rank among LHINs <sup>†</sup> (2015-16)	Range across HNHB sub- regions (2011-14)*
<b>General Health</b>				
General health, % of the population age 12+ with...				
Very good or excellent self-perceived health	62%	61%		55-67%
Very good or excellent self-perceived mental health	73%	71%		69-75%
Days that are 'quite a bit' or 'extremely' stressful (age 15+)	20%	22%		
<b>Prevention</b>				
Use of Health Services and Preventive Care, % of the population age 12+ who...				
Have a regular medical doctor	93% <sup>1</sup>	90%	<i>Highest</i>	93-97%
Have consulted with family doctor/general practitioner (past yr)	73%	74%		
Received flu shot in the past year	31%	33%		
<b>Risk Factors</b>				
Risk factors, % of the population age 12+ who...				
Are daily or occasional smokers	19%	17%		19-26% <sup>c</sup>
Are exposed to second-hand smoke in the home	8.4%	6.9%		
Are heavy drinkers	19%	18%		
Are overweight or obese (age 18+)	65%	61%		55-65%
Are overweight (age 18+)	37%	35%		32-46%
Are obese (age 18+)	28%	26%		20-28%
Are physically inactive	41%	42%		39-50%
Consume < 5 servings of fruits/vegetables daily	74%	72%		52-65%

\*2011-2014 sub-region rates are not directly comparable with LHIN and Ontario rates from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

<sup>†</sup>Top or bottom 3 ranking in the province, compared to other LHINs. Interpret with caution, rank based on point estimate, which may or may not be significantly different from Ontario. See significance flags for each measure below.

<sup>1</sup> LHIN is **significantly higher** than Ontario

<sup>-1</sup> LHIN is **significantly lower** than Ontario

<sup>c</sup> Estimates with high sampling variability (CV between 16.6 -33.3) must be used with caution.

## Chronic Conditions

### Prevalence, mortality, hospital separations and hospital days of stay for selected chronic conditions

- 42.6% of HNHB residents (aged 12+) reported having a one or more chronic conditions while 19.1% having two or more chronic conditions.
- Of note, the prevalence rate for residents with one or more chronic conditions was **significantly higher** than Ontario (39.6%).
- Additionally, the prevalence rate for residents with two or more chronic conditions was **significantly higher** than Ontario.
- The mean health care cost per user for HNHB residents in 2015/16 was \$3,100 (\$2,750 for Ontario).
- 7.0% of the patients were complex (4+ conditions), 5.8% for Ontario. HNHB LHIN was among the 3 LHINs with the largest proportion of complex patients.
- The mean healthcare cost of a complex patient was \$21,400 compared to \$22,050 for Ontario.
- 5.8% of the patients were High Cost User patients, 5.0% for Ontario.
- The mean healthcare cost per High Cost User was \$37,550 compared to \$37,700 for Ontario.
- The hospitalization rate (per 100,000 population) for hypertension in Hamilton Niagara Haldimand Brant LHIN was 21.8 compared to 18 for Ontario. HNHB LHIN was among the 3 LHINs with the highest rates.

### Chronic Conditions, Complex Patients

Condition	HNHB	Ontario	Comment
<b>Self-reported prevalence (2015-16), rate per 100, age 12+</b>			
Arthritis	25.5	20.6	
Asthma	8.3	8.7	
Cancer	1.7 <sup>C</sup>	1.3	
Chronic Obstructive Pulmonary Disease (COPD) (age 35+)	4.9	4.0	
Diabetes	7.1	7.4	
High blood pressure	19.4	18.2	
Heart disease	4.9	4.6	
Suffer from effects of stroke	1.1 <sup>C</sup>	1.3	
Have a chronic condition	42.6	39.6	
Have multiple chronic conditions <sup>1</sup>	19.1	16.2	

C: 0.15<CV<=0.25 Marginal (Use with caution-high sampling variability)

D: 0.25<CV<=0.35 Marginal (Use with caution-high sampling variability)

1 - Of the selected conditions on this list

### Acute Inpatient Hospital Separations (2016 calendar year)

#### AGE STANDARDIZED rate per 100,000

Asthma	35.3	34.3
Cardiovascular disease	1,039.5	916.9
Cerebrovascular disease	133.9	133.2
COPD	195.6	171.8
Diabetes	114.9	100.2
Hypertension	21.8	18.0
Ischemic heart disease	330.2	314.8
Lower respiratory disease	232.8	208.9
Respiratory disease	667.0	599.7
Stroke	115.4	112.5

### Complex Patients and High Cost Users, 2015/16

Mean health care cost per user \$	\$ 3,100	\$ 2,750
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$ 21,400	\$ 22,050
# of patients that are complex	84,285	680,115
% of all patients (health care users) that are complex	7.0%	5.8%
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$ 37,550	\$ 37,700
# of patients that are high cost users	70,570	581,670
% of patients that are high cost users	5.8%	5.0%

#### HAMILTON SUB-REGION (401)

- The prevalence rate (per 100) for the population with arthritis (14+) was 20.3 (Ontario - 17.3). **Hamilton** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with heart disease was 6.6 (Ontario - 5). **Hamilton** sub-region's rate was **significantly higher** than Ontario.
- The mean health care cost per user in **Hamilton** sub-region was \$3,300 (Ontario - \$2,750).
- 6.6% of patients from **Hamilton** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Hamilton** sub-region was \$24,600 (Ontario - \$22,050).
- 6.0% of patients from **Hamilton** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Hamilton** sub-region was \$40,300 (Ontario - \$37,700).

### Chronic Conditions, Complex Patients

Condition	Hamilton	Ontario	Ranking out of 76 sub-regions*
Self-reported prevalence (2011-2014), rate per 100, age 12+			
Arthritis (age 14+)	20.3	17.3	30
Asthma	8.9	7.8	24
Diabetes	7.7	6.8	30
High blood pressure	20.4	18.1	31
Heart disease	6.6	5.0	13

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<i>AGE STANDARDIZED rate per 100,000</i>		
Asthma	36.9	34
Cardiovascular disease	1,046.9	29
Cerebrovascular disease	148.6	34
COPD	211.6	35
Diabetes	106.9	38
Hypertension	26.7	11
Ischemic heart disease	295.7	53
Lower respiratory disease	250.2	32
Respiratory disease	688.4	29
Stroke	132.6	23

Complex Patients and High Cost Users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,300	\$ 2,750 20
Complex Patients (4+ conditions)		
Mean health care cost per complex patient \$	\$24,600	\$ 22,050 18
# of patients that are complex	30,305	680,115
% of all patients (health care users) that are complex	6.6%	5.8% 20
High cost users (Top 5%) #		
Mean health care cost per high cost user \$	\$40,300	\$ 37,700 14
# of patients that are high cost users	27,135	581,670
% of patients that are high cost users	6.0%	5.0% 33

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.



## BURLINGTON SUB-REGION (402)

- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 90.4 (Ontario - 133.2). **Burlington** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 94.2 (Ontario - 171.8). **Burlington** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 119.2 (Ontario - 208.9). **Burlington** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 455.0 (Ontario - 599.7). **Burlington** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for stroke was 79.9 (Ontario - 112.5). **Burlington** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Burlington** sub-region was \$2,600 (Ontario - \$2,750).
- 6.3% of patients from **Burlington** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Burlington** sub-region was \$18,200 (Ontario - \$22,050). It was among the 8 sub-regions with the lowest mean cost per complex patient.
- 4.9% of patients from **Burlington** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Burlington** sub-region was \$35,850 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Burlington	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	21.9	17.3	23
Asthma	7.6	7.8	41
Diabetes	6.2	6.8	47
High blood pressure	20.5	18.1	29
Heart disease	4.9	5.0	43

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	23.3	34.3
Cardiovascular disease	833.9	916.9
Cerebrovascular disease	90.4	133.2
COPD	94.2	171.8
Diabetes	69.8	100.2
Hypertension	15.4	18.0
Ischemic heart disease	267.1	314.8
Lower respiratory disease	119.2	208.9
Respiratory disease	455.0	599.7
Stroke	79.9	112.5

Complex Patients and High Cost Users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$2,600	\$ 2,750
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$18,200	\$ 22,050
# of patients that are complex	10,275	680,115
% of all patients (health care users) that are complex	6.3%	5.8%
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$35,850	\$ 37,700
# of patients that are high cost users	7,965	581,670
% of patients that are high cost users	4.9%	5.0%

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

#### BURLINGTON SUB-REGION (403)

- The age standardized rate (per 100,000) for hospitalization for diabetes was 49.4 (Ontario - 100.2). **Burlington** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Burlington** sub-region was \$2,750 (Ontario - \$2,750).
- 5.3% of patients from **Burlington** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Burlington** sub-region was \$21,100 (Ontario - \$22,050).
- 5.3% of patients from **Burlington** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Burlington** sub-region was \$35,450 (Ontario - \$37,700).
- **Burlington** was among the 8 sub-regions with the lowest hospitalization rates for cerebrovascular disease, chronic obstructive pulmonary disease, and lower respiratory disease, respiratory disease, and stroke.
- **Burlington** was among the 8 sub-regions with the lowest mean cost per complex patient.

## Chronic Conditions, Complex Patients

Condition	Niagara North West	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	16.6	17.3	48
Asthma	7.1	7.8	51
Diabetes	F	6.8	
High blood pressure	16.4	18.1	54
Heart disease	F	5.0	53

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	28.9	34.3	50
Cardiovascular disease	1,023.6	916.9	34
Cerebrovascular disease	139.9	133.2	44
COPD	133.8	171.8	55
Diabetes	49.4	100.2	74
Hypertension	11.1	18.0	64
Ischemic heart disease	352.0	314.8	38
Lower respiratory disease	163.9	208.9	58
Respiratory disease	547.3	599.7	58
Stroke	123.3	112.5	34

Complex Patients and High Cost Users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,750	\$ 2,750	47.5
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$21,100	\$ 22,050	49
# of patients that are complex	2,935	680,115	
% of all patients (health care users) that are complex	5.3%	5.8%	55
<b>High cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$35,450	\$ 37,700	53.5
# of patients that are high cost users	2,985	581,670	
% of patients that are high cost users	5.3%	5.0%	41

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

#### NIAGARA SUB-REGION (404)

- The prevalence rate (per 100) for the population with arthritis (14+) was 21 (Ontario - 17.3). **Niagara sub-region's rate was significantly higher** than Ontario.
- The mean health care cost per user in **Niagara sub-region** was \$3,150 (Ontario - \$2,750).
- 8.3% of patients from **Niagara sub-region** were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the highest percentage of complex patients.
- The mean health care cost per complex patient in **Niagara sub-region** was \$18,950 (Ontario - \$22,050). It was among the 8 sub-regions with the lowest mean cost per complex patient.
- 6.1% of patients from **Niagara sub-region** were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Niagara sub-region** was \$36,250 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Niagara	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	21.0	17.3	27
Asthma	9.5	7.8	18
Diabetes	8.0	6.8	26
High blood pressure	18.7	18.1	42
Heart disease	6.2	5.0	21

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	35.4	34.3	37
Cardiovascular disease	1,100.4	916.9	20
Cerebrovascular disease	140.2	133.2	43
COPD	193.7	171.8	41
Diabetes	138.5	100.2	21
Hypertension	18.4	18.0	32.5
Ischemic heart disease	370.0	314.8	33
Lower respiratory disease	231.9	208.9	38
Respiratory disease	703.5	599.7	25
Stroke	111.4	112.5	46

Complex Patients and High Cost Users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$3,150	\$ 2,750	27.5
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$18,950	\$ 22,050	70
# of patients that are complex	27,765	680,115	
% of all patients (health care users) that are complex	8.3%	5.8%	3
<b>High cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$36,250	\$ 37,700	39.5
# of patients that are high cost users	20,405	581,670	
% of patients that are high cost users	6.1%	5.0%	29

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

#### BRANT SUB-REGION (405)

- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 347.4 (Ontario - 171.8). Brant sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for hypertension was 27.9 (Ontario - 18). Brant sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 399.2 (Ontario - 208.9). Brant sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in Brant sub-region was \$2,950 (Ontario - \$2,750).
- 6.3% of patients from Brant sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in Brant sub-region was \$21,850 (Ontario - \$22,050).
- 5.8% of patients from Brant sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in Brant sub-region was \$35,400 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Brant	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	18.9	17.3	38
Asthma	8.7	7.8	27
Diabetes	8.3	6.8	19
High blood pressure	19.6	18.1	37
Heart disease	5.8	5.0	28

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	51.1	34.3	11
Cardiovascular disease	1,171.9	916.9	14
Cerebrovascular disease	140.8	133.2	41
COPD	347.4	171.8	7
Diabetes	159.6	100.2	9
Hypertension	27.9	18.0	8
Ischemic heart disease	407.5	314.8	16
Lower respiratory disease	399.2	208.9	8
Respiratory disease	945.6	599.7	9
Stroke	124.7	112.5	32

Complex Patients and High Cost Users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,950	\$ 2,750	43
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$21,850	\$ 22,050	39
# of patients that are complex	7,415	680,115	
% of all patients (health care users) that are complex	6.3%	5.8%	34
<b>High cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$35,400	\$ 37,700	55
# of patients that are high cost users	6,805	581,670	
% of patients that are high cost users	5.8%	5.0%	36

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.



#### HALDIMAND NORFOLK SUB-REGION (406)

- The prevalence rate (per 100) for the population with arthritis (14+) was 24.8 (Ontario - 17.3). **Haldimand Norfolk** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with high blood pressure was 22.1 (Ontario - 18.1). **Haldimand Norfolk** sub-region's rate was **significantly higher** than Ontario's.
- The mean health care cost per user in **Haldimand Norfolk** sub-region was \$3,050 (Ontario - \$2,750).
- 6.5% of patients from **Haldimand Norfolk** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Haldimand Norfolk** sub-region was \$21,150 (Ontario - \$22,050).
- 6.2% of patients from **Haldimand Norfolk** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Haldimand Norfolk** sub-region was \$34,250 (Ontario - \$37,700). It was among the 8 sub-regions with the lowest mean cost per high cost user.

## Chronic Conditions, Complex Patients

Condition	Haldimand Norfolk	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	24.8	17.3	12
Asthma	9.6	7.8	16
Diabetes	7.0	6.8	35
High blood pressure	22.1	18.1	15
Heart disease	6.6	5.0	14

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	23.3	34.3	66.5
Cardiovascular disease	1,065.3	916.9	25
Cerebrovascular disease	123.7	133.2	59
COPD	192.7	171.8	43
Diabetes	142.6	100.2	20
Hypertension	26.4	18.0	12
Ischemic heart disease	364.5	314.8	34
Lower respiratory disease	216.9	208.9	42
Respiratory disease	658.8	599.7	35
Stroke	109.8	112.5	47

Complex Patients and High Cost Users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$3,050	\$ 2,750	36.5
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$21,150	\$ 22,050	48
# of patients that are complex	6,090	680,115	
% of all patients (health care users) that are complex	6.5%	5.8%	26
<b>High cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$34,250	\$ 37,700	72
# of patients that are high cost users	5,810	581,670	
% of patients that are high cost users	6.2%	5.0%	28

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## Human Resources

### Physicians

- In 2016, there were approximately 3,029 physicians in HNHB LHIN.
  - This represents the equivalent of approximately 207 physicians for every 100,000 persons in HNHB LHIN.
  - The number of physicians in HNHB LHIN increased by close to 8% between 2013 and 2016 with similar growth occurring among both family medicine physicians and specialists.
- Between 2013 and 2016, there was an increase of approximately 69 family physicians in HNHB LHIN.
  - The majority of the increase in HNHB LHIN occurred with 88 additional family physicians between 30-64 years of age.
- In 2016, approximately 14% of family physicians in HNHB LHIN were at or beyond the age of retirement (65 years of age or older).

### Nurses

- In 2016, there were 15,809 total nurses in HNHB LHIN.
- The total number of nurses increased by 4.1% between 2013 and 2016.
  - While there was a decrease in the number of Registered Nurses in HNHB LHIN between 2013 and 2016, there were substantial increases in the number of Nurse Practitioners (32% increase) and Registered Practical Nurses (14% increase) during the same time period.
- In 2016, there were approximately 1,082 nurses for every 100,000 residents of HNHB LHIN.

### Other Allied Health Professionals

- Between 2013 and 2016, the greatest growth in the number of allied health professionals in HNHB LHIN was among pharmacists (an increase of 266 or about 21%), midwives (an increase of 16 or approximately 19%) and psychologists (an increase of 33 or 16%).
- There was notable growth in the number of audiologists (4 additional or 7%), occupational therapists (56 additional or 10%) and optometrists (22 or 11%) in HNHB LHIN between 2013 and 2016.
- Opticians in HNHB LHIN experienced a 2.3% reduction in their raw numbers (5 fewer) and slightly higher reductions in their numbers per capita.

HNHB LHIN					
Physicians	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Total Family Medicine Physicians</b>					
Number of family medicine physicians	1195	1223	1231	1264	5.8%
Rate per 100,000 population	84.2	85.3	85.2	86.5	2.8%
<b>Total Specialists</b>					
Number of specialists	1614	1671	1716	1765	9.4%
Rate per 100,000 population	113.7	116.5	118.8	120.8	6.3%
<b>Total Physicians</b>					
Number of total physicians	2809	2894	2947	3029	7.8%
Rate per 100,000 population	197.9	201.8	203.9	207.4	4.8%
<b>Family Physicians, by age group - count</b>					
Age <30	25			28	12.0%
Age 30-64	996			1054	5.8%
Age 65-74	155			153	-1.3%
Age 75+	19			29	52.6%
Grand Total	1195			1264	5.8%
Age 65+	174			182	4.6%
<b>Family Physicians, by age group – percent</b>					
Age <30	2.1%			2.2%	5.9%
Age 30-64	83.3%			83.4%	0.0%
Age 65-74	13.0%			12.1%	-6.7%
Age 75+	1.6%			2.3%	44.3%
Age 65+	14.6%			14.4%	-1.1%

HNHB LHIN					
Nurses	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Registered Nurses</b>					
Number of RNs	10473	10434	10481	10400	-0.7%
Rate per 100,000 population	736.5	727.7	725.3	712.0	-3.3%
<b>Registered Practical Nurses</b>					
Number of RPN nurses	4501	4722	4932	5135	14.1%
Rate per 100,000 population	316.5	329.3	341.3	351.5	11.1%
<b>Nurse Practitioners</b>					
Number of NP nurses	208	239	245	274	31.7%
Rate per 100,000 population	14.6	16.7	17.0	18.8	28.2%
<b>Total Nurses</b>					
Total Nurse - Number of nurses	15182	15395	15658	15809	4.1%
Total Nurse - Rate per 100,000 population	1067.6	1073.7	1083.0	1082.3	1.4%

HNHB LHIN					
Other Regulated Health Professionals	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Audiologists</b>					
Audiologist - Number	56	55	61	60	7.1%
Audiologist - Rate per 100,000 population	3.9	3.8	4.2	4.1	4.3%
<b>Midwives</b>					
Midwife - Number	83	91	85	99	19.3%
Midwife - Rate per 100,000 population	5.8	6.3	5.9	6.8	16.1%
<b>Occupational Therapists</b>					
Occupational Therapist - Number	565	577	605	621	9.9%
Occupational Therapist - Rate per 100,000 population	39.7	40.2	41.9	42.5	7.0%
<b>Opticians</b>					
Optician - Number	219	218	231	214	-2.3%
Optician - Rate per 100,000 population	15.4	15.2	16.0	14.7	-4.9%
<b>Optometrists</b>					
Optometrist - Number	197	206	207	219	11.2%
Optometrist - Rate per 100,000 population	13.9	14.4	14.3	15.0	8.2%
<b>Pharmacists</b>					
Pharmacist - Number	1260	1375	1441	1526	21.1%
Pharmacist - Rate per 100,000 population	88.6	95.9	99.7	104.5	17.9%
<b>Psychologists</b>					
Psychologist - Number	202	220	233	235	16.3%
Psychologist - Rate per 100,000 population	14.2	15.3	16.1	16.1	13.3%
<b>Speech-Language Pathologists</b>					
Speech-Language Pathologist - Number	318	318	316	320	0.6%
Speech-Language Pathologist - Rate per 100,000 population	22.4	22.2	21.9	21.9	-2.0%

## Primary Care

### Primary Care Enrolment

- Over 1,187,000 HNHB LHIN residents were enrolled with a PEM as of 2016/2017, with 282,218 residents enrolled with FFS physicians and practices.
- Of those enrolled with a PEM, the large majority was associated with a FHO and slightly more patients affiliated with the non-FHT (405,022 vs 384,367).
- There are 96 primary care practices with 1,022 physicians affiliated with these practices in HNHB. In FHOs, there are 520 physicians, compared to 225 FFS physicians.

### Selected Measures from the Health Care Experience Survey

#### Self-reported access to, and satisfaction with, primary care

	Ontario (2017)	LHIN (2017)	Range Across HNHB sub-regions (2014-2017)
Percentage who are satisfied with health care in their community	87%	83%	80% to 91%
Percentage with primary care providers (attached patients)	94%	94%	94% to 97%
Percentage who saw their primary care provider within the same day/next day when sick	40%	38%	36% to 48%
Percentage who went to ED for something that could have been treated by primary care provider	42%	29% <sup>L</sup>	32% to 54%
Percentage who found it difficult to access care after-hours without going to an emergency department	53%	46% <sup>L</sup>	30% to 68%
Percentage who went to walk-in clinic in past 12 months	30%	29%	11% to 47%
Percentage who went to a walk in clinic for something that could have been treated by provider if they were available	92%	90%	90% to 94%*

*H=significantly higher than the province*

*L=significantly lower than the province*

*\*some sub-region estimates not reportable*

- Across the LHIN, 83% of HNHB residents were satisfied with health care in their community
  - **Niagara** and **Brant** sub-regions were observed with **significantly lower** satisfaction scores compared to the province (80% and 81% respectively).
- In 2017, 94% of HNHB adults (aged 16 years and older) had a primary care provider.
- When they were sick, approximately 38% of HNHB residents saw their provider the same day or next day.
- HNHB had the the lowest proportion who went to the ED for something that could have been treated by a primary care provider (29%) and lowest proportion who found it difficult to access after-hours care (46%). Both these values were **significantly lower** than the provincial values
  - **Hamilton** sub-region reported a **significantly lower** proportion visiting the ED for something that could have been treated by a primary care provider (32%).
  - Similarly, **Hamilton** and **Burlington** sub-regions reported **significantly lower** proportions of residents who found it difficult to access after-hours care without going to an ED (41% and 30% respectively). By contrast, **Brant** and **Haldimand Norfolk** reported **significantly higher** proportions that the province for the same measure (64% and 68% respectively).
- Twenty-nine (29%) percent of HNHB residents visited a walk-in clinic in the past 12 months, which was varied according to the sub-regions.

- Haldimand Norfolk (11%), Niagara North West (14%) and Hamilton (18%) reported **significantly lower** proportions than the province, and Burlington sub-region reported 47%, which was **significantly higher** than the province.
- o Approximately 90% of HNHB residents felt that they visited a walk-in clinic for something that could have been treated in primary health care, had it been available.

## Community Care

- Hamilton Niagara Haldimand Brant LHIN ranks second lowest in CMH&A\_Community Visits- Non Face to Face Visits per 1,000 population with 83 (province is 126).
- Hamilton Niagara Haldimand Brant LHIN ranks second lowest in CSS\_Community Visits- Non Face to Face Visits per 1,000 population with 57 (province is 112).
- Hamilton Niagara Haldimand Brant LHIN ranks second lowest in CSS\_Community Visits-Face to Face Visits per 1,000 population 75+ with 2,783 (province is 5,365).
- Hamilton Niagara Haldimand Brant LHIN ranks lowest in CSS\_Community Visits- Non Face to Face Visits per 1,000 population 75+ with 677 (province is 1,556).



## Mental Health

### Wait Time for Community Services

- Abuse services and support within housing had the longest median wait times among the community mental health (MH) services in HNHB LHIN in 2017/18. With the exception of abuse services and counselling and treatment, HNHB LHIN had shorter median wait times than the province for all community MH services in 2017/18.
- Among the substance abuse (SA) services provided in HNHB LHIN, case management and residential supportive treatment had the longest median wait times (46 and 42 days) in 2017/18. The median wait time in this LHIN was 36 and 32 days longer than the province for those two services.
- Only community treatment is provided in this LHIN for problem gambling. The median wait time for this treatment was the same as the provincial median wait of 10 days.

### Mental Health and Substance Abuse Emergency Department Visits

- In 2016/17, there were 28,416 unscheduled ED visits for Hamilton Niagara Haldimand Brant (HNHB) residents where the main problem was a MH/SA condition. There were 34,691 visits with a MH/SA condition in any of the diagnostic fields.
- Between 2013/14 and 2016/17, there was 21.7% growth in visits with a MH/SA main problem diagnosis (higher than the province's value of 20.9%) and 18.1% growth in visits with a MH/SA condition in any diagnostic field (lower than the province's value of 21.1%).
- The MH/SA ED visit rate per 1,000 population for HNHB LHIN residents was slightly higher than the provincial value (19.5 compared to 19.2). The main problem visit rate increased by 18.3% between 2013/14 and 2016/17.
  - By sub-region, **Niagara North West** had the 6<sup>th</sup> lowest ED visit rate (tied with **Tecumseh Lakeshore Amherstburg LaSalle** at 11.1 per 1,000 population) where the main problem was a MH/SA condition.
  - Where a MH/SA condition was in any of the diagnostic fields, **Niagara North West** had the 7<sup>th</sup> lowest rate (14.3 per 1,000 population).
- Visits with a MH/SA main problem diagnosis accounted for 4.1% of all ED visits for HNHB LHIN residents.
- In 2016/17, there were 819 ED visits of HNHB residents for opioid overdose. Of those, 65.8% were accidental – the **highest** proportion in the province.
- The crude rate of ED visits for opioid overdose in FY 2016/17 for HNHB residents was 5.6, the **highest** rate in the province. Between 2013/14 and 2016/17, there was a 71.8% growth in the visit rate for opioid overdose for all HNHB residents, the third highest growth in the province.

**Unscheduled emergency department utilization for mental health and substance abuse conditions, HNHB LHIN and Ontario residents, 2016/17**

Measure	HNHB LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient<sup>†</sup></b>				
Main problem visits	28,416	268,514	21.7%	
% of total ED visits	4.1%	4.3%	-	
Any problem visits	34,691	338,260	18.1%	
% of total ED visits	5.0%	5.5%	-	
Main problem, visits per 1,000	19.5	19.2	18.3%	
Any problem, visits per 1,000	23.7	17.1%	14.8%	
ED visits for opioid overdose	819	4,831	76.5%	
% of visits that were accidental	65.8%	50.1%	-	Highest
Crude rate per 10,000 population	5.6	3.5	71.8%	Highest

<sup>†</sup>LHIN of patient results for Ontario exclude out-of-province residents

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

### Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility

- In 2016/17, there were 28,065 unscheduled ED visits in **Hamilton Niagara Haldimand Brant** LHIN hospitals, where the main problem was a MH/SA condition. 3.7% of these visits were made by homeless individuals, the second highest proportion in the province.
- There were 6,055 admissions and 6,472 active cases who received treatment in adult designated MH units in HNHB LHIN hospitals. There were 6,064 discharges from these units with the total days of discharge patients equal to 147,045 days. The mean length of stay in HNHB LHIN MH units was 24.2 days, shorter than all Ontarians (24.9 days). Residents from outside the LHIN accounted for 9.7% of the active cases treated in HNHB LHIN.
- Between 2013/14 and 2016/17, active cases, admissions and discharges increased in HNHB LHIN hospitals by 13.4%, 14.3% and 15.1%, respectively. The total days of discharged patients increased by 13.7%.
- Bipolar and depressive disorders (31.6%) and schizophrenia and psychotic disorders (26.6%) accounted for the largest proportions of active cases in HNHB LHIN hospitals in 2016/17. Compared with the provincial values, HNHB had larger proportions of active cases for bipolar and depressive disorders, personality disorders and neurocognitive disorders.
- There were 6,434 active cases, 6,045 admissions and 6,064 discharges for HNHB LHIN residents from Ontario adult designated MH units. Mean length of stay for HNHB LHIN residents was lower than the province (23.0 days compared to 24.8 days). 5.1% of HNHB LHIN resident active cases received treatment in hospitals outside the LHIN. Compared with the provincial rates, HNHB LHIN residents had lower rates of active cases, admissions, and discharges per 100,000 population age 15+.
  - By sub-region, **Burlington** had the 5<sup>th</sup> shortest mean length of stay among all sub-regions (13.6 days). **Hamilton** sub-region had the 7<sup>th</sup> longest mean length of stay (38.3 days).
  - **Niagara North West** sub-region had the lowest crude rate of active cases at 239.9 per 100,000. This sub-region also had the lowest crude rate of admissions (217.4) and discharges (219.2) per 100,000 population among the 76 sub-regions.
- Active cases, admissions, discharges, total days and the associated rates increased for HNHB LHIN residents between 2013/14 and 2016/17.

### Adult designated mental health unit utilization, HNHB LHIN hospitals and residents, 2016/17

Measure	HNHB LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient</b>				
Active cases	6,434	64,523	8.6%	
Admissions	6,045	60,197	10.0%	
Discharges	6,064	60,607	10.9%	
Total Days	139,282	1,504,690	2.2%	
Mean Length of Stay	23.0	24.8	-	
% Outflow Active Cases	9.2%	-	-	
Active Cases per 100,000 (age 15+)	520.6	548.5	5.1%	
Admission per 100,000 (age 15+)	489.1	511.7	6.5%	
Discharges per 100,000 (age 15+)	490.7	515.2	7.4%	
<b>SCIPP Categories - % of total active cases</b>				
Short Stay	25.5%	27.4%	-	
Schizophrenia and other psychotic disorders	24.4%	27.0%	-	
Neurocognitive disorders	3.4%	3.1%	-	
Bipolar and depressive disorders	32.9%	29.6%	-	
Personality disorders	4.6%	3.0%	-	
Feeding and eating disorders	0.3%	0.4%	-	
Substance Use disorders	5.5%	5.5%	-	
Other disorders	3.4%	4.0%	-	
<b>LHIN of hospital</b>				
Active cases	6,472	64,738	13.4%	
Admissions	6,055	60,383	14.3%	
Discharges	6,064	60,795	15.1%	
Total Days (discharged patients only)	147,045	1,512,754	13.7%	
Mean Length of Stay	24.2	24.9	-	
% Inflow Active Cases	9.7%	-	-	

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

## Surgery & Diagnostic Imaging

### Day Surgery and Cardiac Catheterization Utilization

#### Day Surgery and Cardiac Catheterization Visits

- In 2016/17, there were 136,823 day surgery and ambulatory cardiac catheterization visits to HNHB LHIN hospitals. Residents from outside the LHIN accounted for 6.3% of the visits.
- Between 2013/14 and 2016/17, there was a decrease of 2.4% in HNHB LHIN hospital's day surgery and cardiac catheterization visits. This was the greatest reduction of all LHINs.
- There were 142,929 day surgery and ambulatory cardiac catheterization visits for HNHB LHIN residents. There was a decrease in both the number and rate of visits between 2013/14 and 2016/17.
- In 2016/17, 10.3% of these visits occurred in hospitals outside the LHIN.
- HNHB LHIN residents had 97.8 day surgery and cardiac catheterization visits per 1,000 population. This rate was higher than the provincial rate of 93.9.

#### Day surgery and ambulatory cardiac catheterization visits, HNHB LHIN and Ontario, 2016/17

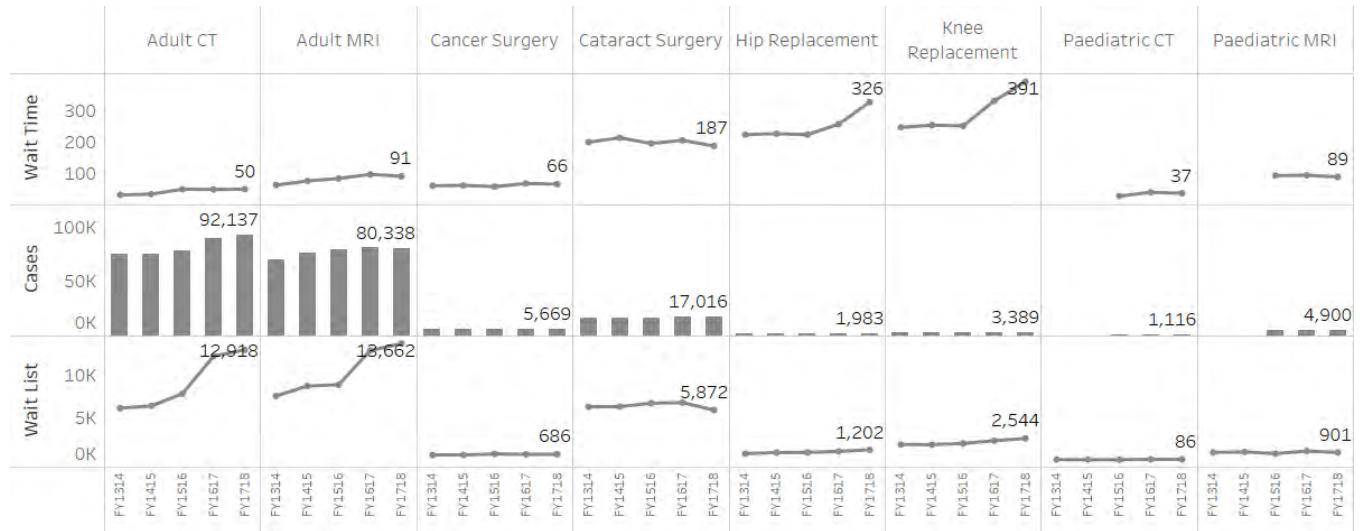
Measure	LHIN	Comments	Ontario†	LHIN % change 2013-14 - 2016/17	Range within LHINs	Range within HNHB sub-regions
<b>LHIN of hospital</b>						
Visits	136,823		1,322,943	-2.4%	27,727 - 158,077	
% Inflow visits	6.3%				0.7% - 58.4%	
<b>LHIN of patient</b>						
Total population	1,460,700		13,982,984	2.7%	235,148 - 1,893,948	
Visits	142,929		1,313,103	-1.3%	28,401 - 157,644	6,543 - 50,777
% Outflow visits	10.3%				3.0% - 39.0%	6.0% - 32.8%
Visits per 1,000 population	97.8		93.9	-4.1%	66.8 - 151.0	83.8 - 131.2
- age 0-17 years	22.9		22.2		13.9 - 38.4	
- age 18-44 years	50.5		46.5		34.8 - 85.5	
- age 45-64 years	124.1		125.3		93.9 - 183.0	
- age 65-79 years	231.4		239.9		176.5 - 318.4	
- age 80+ years	191.0		202.7		138.5 - 260.4	

†LHIN of patient results for Ontario exclude out-of-province residents

## Surgical & Diagnostic Imaging Wait Times

### Hamilton Niagara Haldimand Brant LHIN Priority Procedures: Wait 2 90<sup>th</sup> Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

#### LHIN of Treatment

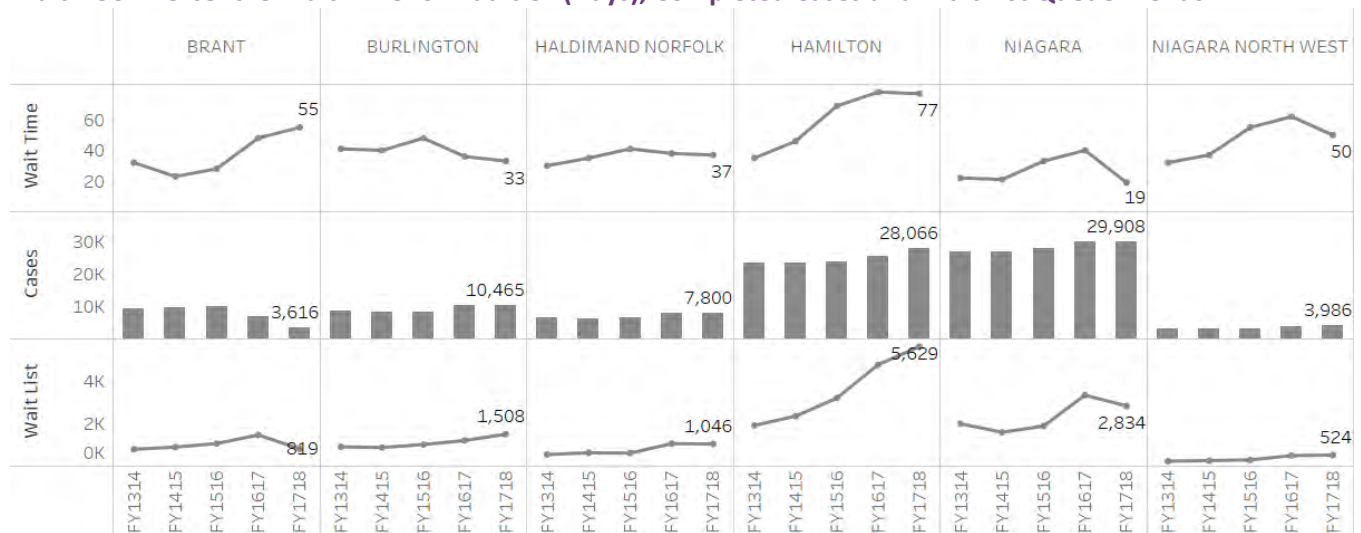


### Adult CT

- There were 92,137 adult CT scans completed in FY 2017-18; 2,543 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 50 days, 1 days longer than the previous fiscal.
- In 2017/18, hospitals in the HNHB LHIN had the 4<sup>th</sup> longest wait time for adult CT scans. [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 12,918 patients; 733 more queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90<sup>th</sup> Percentile Wait Time for Adult CT (Days), Completed Cases and Wait List Queue Trends



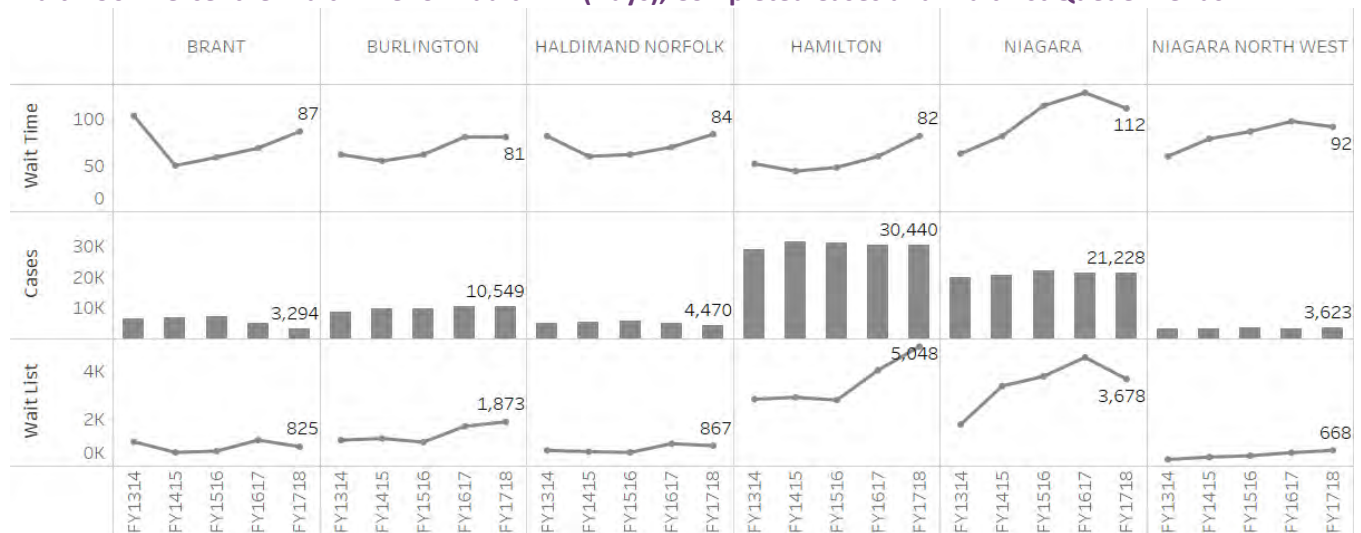
- HNHB LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 19 days to 77 days.

### Adult MRI

- There were 80,338 adult MRI scans completed in FY 2017-18; 1,132 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 91 days, 6 days shorter than the previous fiscal.
- In 2017/18, hospitals in the HNHB LHIN had the 7<sup>th</sup> longest wait time for adult MRI scans. [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 13,662 patients; 824 more queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90<sup>th</sup> Percentile Wait Time for Adult MRI (Days), Completed Cases and Wait List Queue Trends



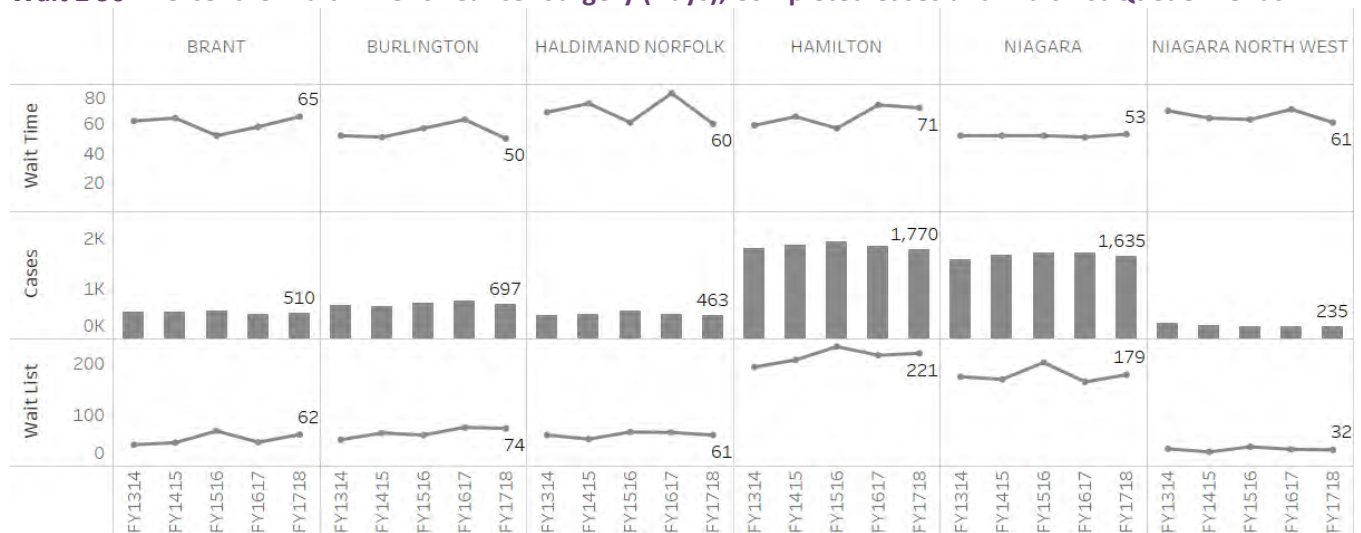
- HNHB LHIN sub-region (of Patient Residence) variation in FY 2017-18: 81 days to 112 days.

## Cancer Surgery

- There were 5,669 cancer surgeries completed in FY 2017-18; 294 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 66 days and the **longest** of all LHINs, 2 days shorter than the previous fiscal.
- In 2017/18, hospitals in the HNHB LHIN had the **longest** wait time for cancer surgery.
- The wait list queue at the start of FY 2017-18 was 686 patients; similar to the previous fiscal year.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Cancer Surgery (Days), Completed Cases and Wait List Queue Trends



- HNHB LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 50 days to 71 days.
- **Hamilton** sub-region wait time of 71 days was the **longest** across the province for this period.

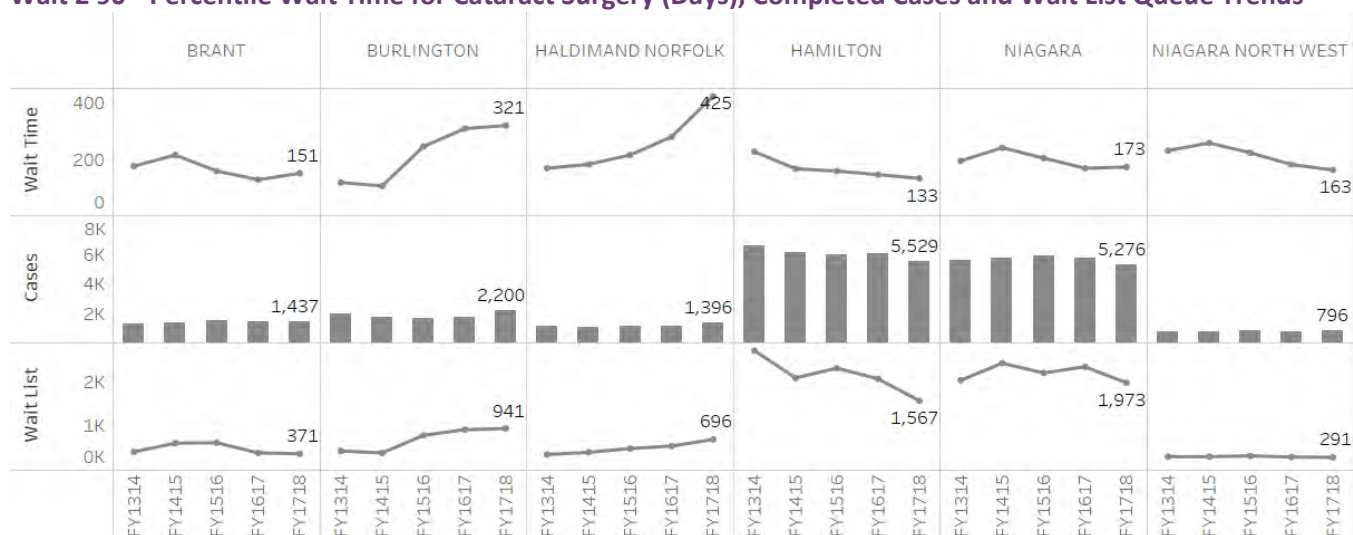


### Cataract Surgery

- There were 17,016 cataract surgeries completed in FY 2017-18; 91 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 187 days, 18 days shorter than the previous fiscal.
- In 2017/18, hospitals in the HNHB LHIN had the 5<sup>th</sup> shortest wait time for cataract surgery.
- The wait list queue at the start of FY 2017-18 was 5,872 patients; 871 fewer queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90<sup>th</sup> Percentile Wait Time for Cataract Surgery (Days), Completed Cases and Wait List Queue Trends



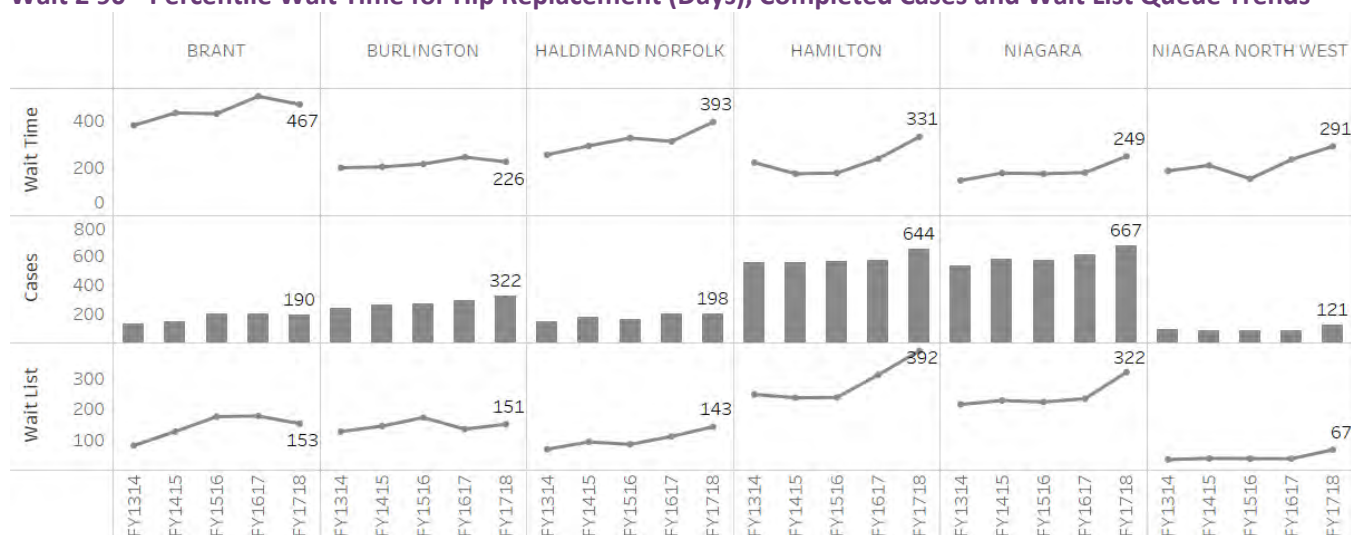
- HNHB LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 133 days to 425 days.

## Hip Replacement

- There were 1,983 hip replacement surgeries completed in FY 2017-18; 101 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 326 days, 70 days longer than the previous fiscal.
- In 2017/18, hospitals in the HNHB LHIN had the 3<sup>d</sup> longest wait time for hip replacement surgery.
- The wait list queue at the start of FY 2017-18 was 1,202 patients; 172 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Hip Replacement (Days), Completed Cases and Wait List Queue Trends



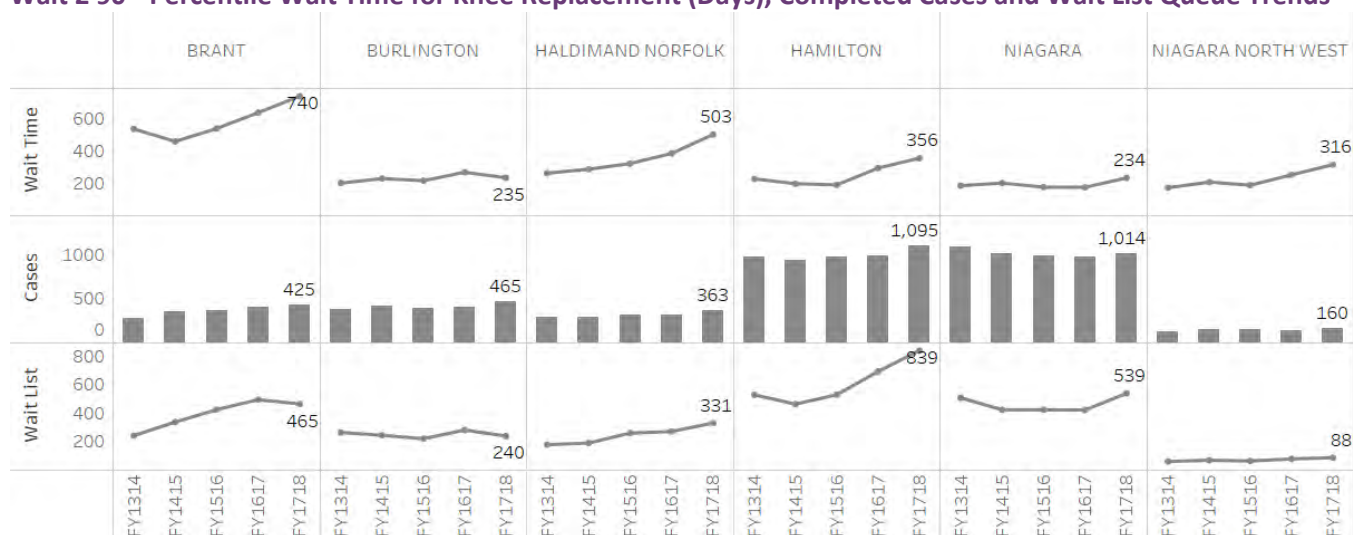
- HNHB LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 226 days to 467 days.
- **Brant** sub-region wait time of 467 days was the **longest** across the province for this period.

## Knee Replacement

- There were 3,389 knee replacement surgeries completed in FY 2017-18; 306 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 391 days, 61 days longer than the previous fiscal.
- In 2017/18, hospitals in the HNHB LHIN had the 4<sup>th</sup> longest wait time for knee replacement surgery.
- The wait list queue at the start of FY 2017-18 was 2,544 patients; 273 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Knee Replacement (Days), Completed Cases and Wait List Queue Trends



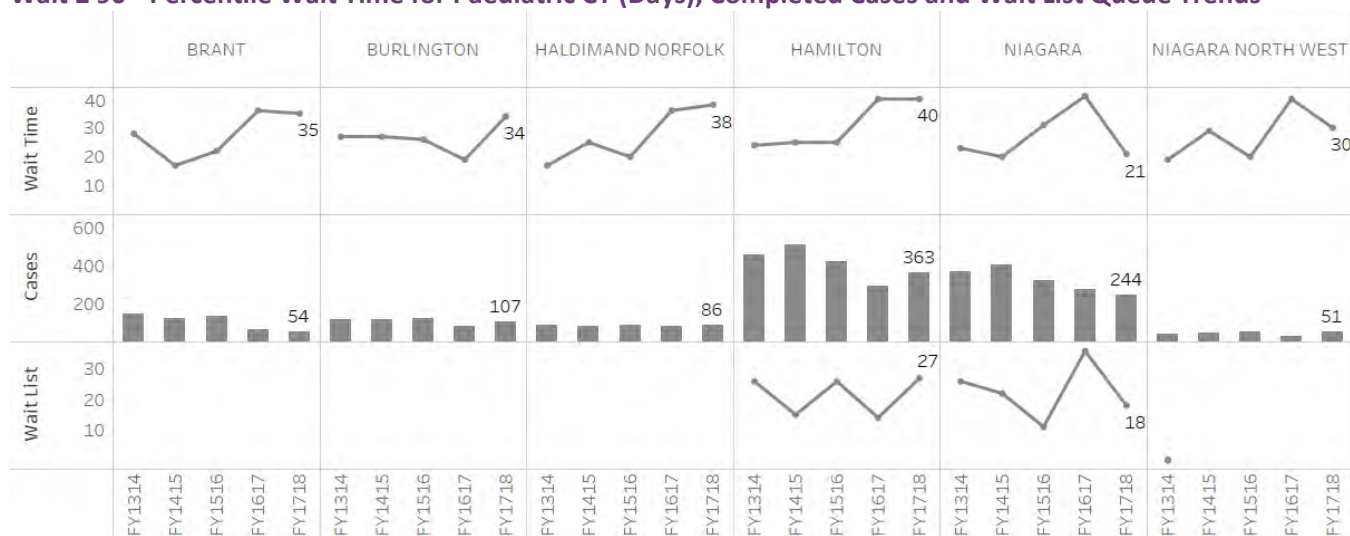
- HNHB LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 234 days to 740 days.
- **Brant** sub-region wait time of 740 days was the **longest** across the province for this period.

## Paediatric CT

- There were 1,116 paediatric CT scans completed in FY 2017-18; 58 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 37 days, 3 days shorter than the previous fiscal.
- In 2017/18, hospitals in the HNHB LHIN had the 3<sup>rd</sup> longest wait time for paediatric CT scans. [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 86 patients; 4 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Paediatric CT (Days), Completed Cases and Wait List Queue Trends



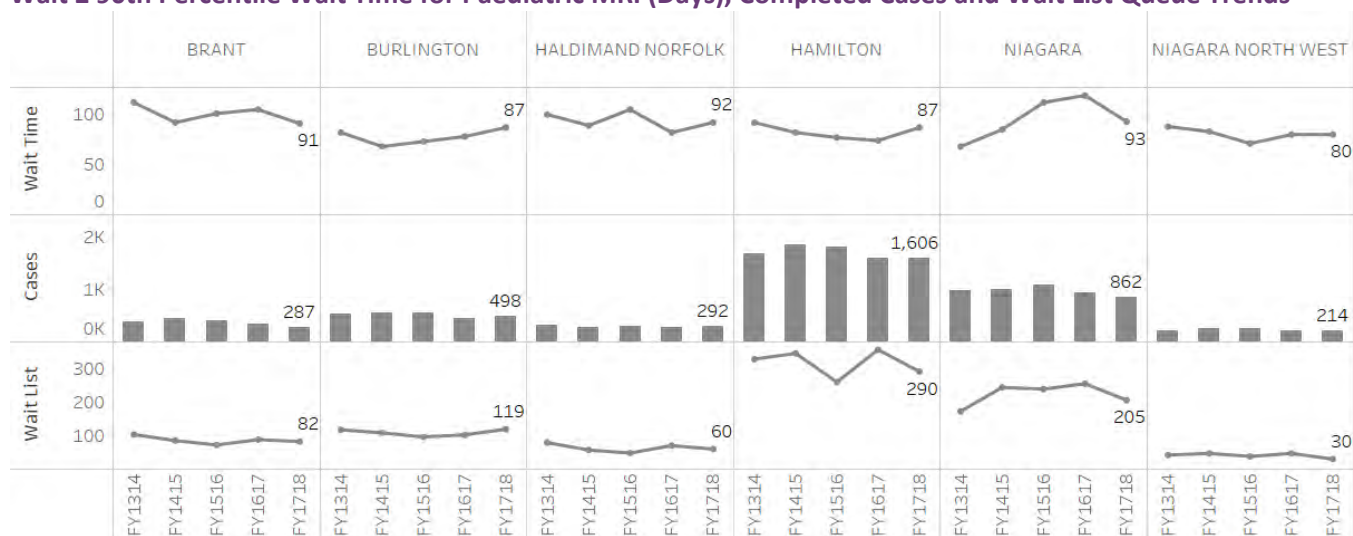
- HNHB LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 21 days to 40 days.

### Paediatric MRI

- There were 4,900 paediatric MRI scans completed in FY 2017-18; 193 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 89 days, 5 days shorter than the previous fiscal.
- In 2017/18, hospitals in the HNHB LHIN had the 7<sup>th</sup> longest wait time for paediatric MRI scans. [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 901 patients; 163 fewer queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90th Percentile Wait Time for Paediatric MRI (Days), Completed Cases and Wait List Queue Trends



- HNHB LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 80 days to 93 days.

## Oncology and Dialysis

### Ambulatory Oncology Utilization

- In 2016/17, there were 130,043 ambulatory oncology visits to hospital(s) in Hamilton Niagara Haldimand Brant (HNHB) LHIN.
- Since 2014/15, visits in Ontario increased by 9%. The number of visits to HNHB LHIN hospitals increased by 8% and visits for HNHB LHIN residents increased by 9%.
- Ambulatory oncology visits per 1,000 population for residents of HNHB LHIN is 85.2 (Ontario - 75.7). The rate is the 3<sup>rd</sup> highest in the province. Visit rates for age group 0-17 years is 4.2 (Ontario - 5.0) and is one of the lowest visit rates in the province for this age group while rates for age group 65-79 years is 273.2 (Ontario - 255.4) is noted as among the highest in the province.
  - The visit rate for residents of **Haldimand Norfolk** sub-region is 98.1 (Ontario - 75.7) and is among the 8 highest visit rate in Ontario.
- 5% of ambulatory oncology visits by HNHB LHIN residents were to hospitals outside of HNHB LHIN.
- 10% of ambulatory oncology visits to HNHB LHIN hospitals were by non-HNHB LHIN residents.

Ambulatory Oncology	HNHB	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory oncology visits	130,043	1,059,358	2 <sup>nd</sup> highest	Increase	
% Inflow oncology visits	9.5%				
<b>LHIN of patient</b>					
Ambulatory oncology visits	124,390	1,057,888		Increase	5,464 -44,810
% Outflow oncology visits	5.4%				
Visits per 1,000 population	85.2	75.7	3 <sup>rd</sup> highest	Increase	73.1 -98.1
Visit rate/1,000 population age 0-17 years	4.2	5.0	4 <sup>th</sup> lowest		1.1 -5.7
Visit rate/1,000 population age 18-44 years	15.7	15.9			11.9 -18.3
Visit rate/1,000 population age 45-64 years	111.9	106.7			97.9 -123.9
Visit rate/1,000 population age 65-79 years	273.2	255.4	4 <sup>th</sup> highest		253.8 -284.3
Visit rate/1,000 population age 80+ years	201.7	191.6			179.7 -208.4

Ambulatory Oncology - Sub-Region	HNHB	Hamilton	Burlington	Niagara North West	Niagara	Brant	Haldimand Norfolk
<b>LHIN of hospital</b>							
Ambulatory oncology visits	130,043						
% Inflow oncology visits	9.5%						
<b>LHIN of patient</b>							
Ambulatory oncology visits~	124,390	44,810	16,819	5,464	36,805	10,720	10,979
% Outflow oncology visits	5.4%	3.0%	18.0%	4.0%	2.3%	6.6%	11.2%
Visits per 1,000 population	85.2	79.9	83.6	85.0	94.5	73.1	98.1
Visit rate/1,000 population age 0-17 years	4.2	4.0	5.4	-	5.7	1.1	4.5
Visit rate/1,000 population age 18-44 years	15.7	16.7	14.8	16.1	15.1	11.9	18.3
Visit rate/1,000 population age 45-64 years	111.9	111.7	106.5	123.9	115.5	97.9	119.6
Visit rate/1,000 population age 65-79 years	273.2	267.8	274.4	253.8	280.3	263.4	284.3
Visit rate/1,000 population age 80+ years	201.7	207.9	208.4	179.7	192.7	198.4	204.7

### Ambulatory Dialysis Utilization

- In 2016/17, there were 134,173 ambulatory dialysis visits to hospital(s) in HNHB LHIN.
- Since 2014/15, visits in Ontario have increased by 3%. The number of visits to HNHB LHIN hospitals increased by 5% and visits by the HNHB LHIN residents increased by 4%.
- The rate of ambulatory dialysis visits per 1,000 population for residents of HNHB LHIN is 101.9 (Ontario - 90.4), 3<sup>rd</sup> highest visit rate in the province.
  - The visit rate for residents in **Niagara North West** sub-region 41.2 (Ontario - 90.4) and is of the 8 lowest visit rates in Ontario. While the visit rate for residents of **Niagara** sub-region is 142.5 (Ontario - 90.4) and is among the 8 highest visit rates in Ontario.
- Below are sub-regions within HNHB LHIN that were noted with high/low visit rates compared to Ontario
  - **Niagara North West** has one of the lowest visit rates in Ontario for age group 18-44 years (6.9 vs. Ontario - 21.8), age group 45-64 years (38.4 vs. Ontario - 105.3), age group 65-79 years (118.7 vs. Ontario 285.3).
  - **Haldimand Norfolk** (132.5) also have one of the lowest visit rates in Ontario (285.3) for age group 65-79 years.
  - Age group 80+ years living in **Niagara** (651.0) has one of the highest visit rates in Ontario (426.7).
- 11% of ambulatory dialysis visits by HNHB LHIN residents were to hospitals outside of HNHB LHIN.
- 0.9% of ambulatory dialysis visits to HNHB LHIN hospitals were by non-HNHB LHIN residents.

*Note: Ambulatory dialysis visit volumes for residents in age group 0-17 are low to none across all sub-regions. Caution should be used when interpreting visit rates in this age group.*

Ambulatory Dialysis	HNHB	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory dialysis visits	134,173	1,269,794	3 <sup>rd</sup> highest	Increase	
% Inflow dialysis visits	0.9%				
<b>LHIN of patient</b>					
Ambulatory dialysis visits	148,816	1,264,676		Increase	2,650 -56,034
% Outflow dialysis visits	10.6%				
Visits per 1,000 population	101.9	90.4	3 <sup>rd</sup> highest	Increase	41.2 -142.5
Visit rate/1,000 population age 0-17 years	0.3	1.2			0.0 -0.8
Visit rate/1,000 population age 18-44 years	24.9	21.8			6.9 -32.0
Visit rate/1,000 population age 45-64 years	110.3	105.3			38.4 -134.9
Visit rate/1,000 population age 65-79 years	289.2	285.3			118.7 -384.7
Visit rate/1,000 population age 80+ years	446.3	426.7			132.7 -651.0

Ambulatory Dialysis - Sub-Region	HNHB	Hamilton	Burlington	Niagara North West	Niagara	Brant	Haldimand Norfolk
<b>LHIN of hospital</b>							
Ambulatory dialysis visits	134,173						
% Inflow dialysis visits	0.9%						
<b>LHIN of patient</b>							
Ambulatory dialysis visits~	148,816	56,034	14,529	2,650	55,489	14,517	6,204
% Outflow dialysis visits	10.6%	0.9%	94.6%	7.8%	0.1%	3.5%	18.8%
Visits per 1,000 population	101.9	99.9	72.2	41.2	142.5	99.1	55.4
Visit rate/1,000 population age 0-17 years	0.3	0.8	-	0.0	0.0	-	0.0
Visit rate/1,000 population age 18-44 years	24.9	25.2	13.8	6.9	32.0	25.4	26.0
Visit rate/1,000 population age 45-64 years	110.3	134.9	64.1	38.4	115.2	129.4	65.5
Visit rate/1,000 population age 65-79 years	289.2	285.3	214.1	118.7	384.7	312.6	132.5
Visit rate/1,000 population age 80+ years	446.3	396.1	397.7	236.0	651.0	348.2	132.7

\*Ranking: Top or bottom 4 ranking in the province, compared to other LHINs.

^ Trend: "Increase/decrease" when there is a change more than 1%, otherwise, "stable"

~ There are some records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables with the LHIN name but as SR unassigned.



## Home Care

### Home Care Patient Referrals

- In 2017/18, there were 85,763 active home care patient referrals in the HNHB LHIN, which was the **highest** in Ontario.
  - The **Hamilton** sub-region had the largest proportion of HNHB LHIN patient referrals at 30,678.
  - Across Ontario's sub-regions, **Hamilton** and **Niagara** had the **highest** and second highest number of active patient referrals with 30,678 and 25,873, respectively.

### Active Patient Referrals 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across the sub-regions*
<b>Brant</b>	8,211	8,056	8,181	
<b>Burlington</b>	8,540	9,285	9,768	
<b>Haldimand Norfolk</b>	5,663	5,838	6,011	
<b>Hamilton</b>	29,106	29,526	30,678	<b>Highest</b>
<b>Niagara</b>	23,800	25,464	25,873	2 <sup>nd</sup> highest
<b>Niagara North West</b>	3,236	3,339	3,593	
<b>Out of LHIN Region</b>	501	582	658	
<b>Unknown Region</b>	2,030	1,626	1,001	
<b>HNHB Total</b>	81,087	83,716	85,763	

\*Rank based on 2017/18 active patient referrals

### Home Care Referral Rate

- In 2017/18, HNHB LHIN's utilization rate was higher than Ontario's (57.9 compared to 48.2).
  - Within the LHIN, the utilization rate ranged from 48.5 referrals per 1,000 in **Burlington** to 66.4 in **Niagara**.

### Referrals (per 1,000 population) 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
<b>Brant</b>	56.8	55.0	55.8	
<b>Burlington</b>	43.3	46.1	48.5	
<b>Haldimand Norfolk</b>	50.9	52.1	53.7	
<b>Hamilton</b>	52.3	52.6	54.7	
<b>Niagara</b>	61.8	65.4	66.4	
<b>Niagara North West</b>	50.8	51.9	55.9	
<b>HNHB Total</b>	56.1	57.3	57.9	

\*Rank based on 2017/18 utilization rates

### Home Care Services

- In HNHB LHIN, there were 1,457,423 home care visits and 4,221,209 service hours in 2017/18.
- The rate of home care visits was 984.6 per 1,000 population and the rate of service hours was 2,851.8 per 1,000 population.
- HNHB had the 2<sup>nd</sup> highest nursing shift hours per 1,000 population and 2<sup>nd</sup> highest personal support hours per 1,000 population.
- The following sub-regions had among the eight highest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - **Hamilton** had the 6<sup>th</sup> highest rate of personal support hours.
  - **Hamilton** had the 6<sup>th</sup> highest rate of total hours.
  - **Hamilton** had the 7<sup>th</sup> highest rate of nutrition visits.
  - **Niagara** had the 7<sup>th</sup> highest rate of nursing shift hours.
  - **Niagara** had the 8<sup>th</sup> highest rate of total hours.
  - **Brant** had the 3<sup>rd</sup> highest rate of nursing shift hours.
  - **Brant** had the 4<sup>th</sup> highest rate of nutrition visits.
- The following sub-regions had among the eight lowest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - **Burlington** had the 7<sup>th</sup> lowest rate of social work visits.
- Between 2014/15 and 2017/18 there was an increase in total visits of 2.5% and an increase in total hours of 2.7% in HNHB LHIN. During this period physiotherapy visits decreased by 24.9%, occupational health visits increased by 10.9% and nursing shift hours increased by 25.7%.
- Between 2014/15 and 2017/18 physiotherapy visit rate decreased by 27.2% and nursing shift hours rate increased by 21.8%.

## Summary of Home Care Service by Type, HNHB LHIN, 2017/18

	HNHB LHIN Residents	Ontario Residents*	Comments	LHIN % Change 2014/15 to 2017/18	Range across HNHB sub- regions**
<b>Service Visits</b>					
<b>All Visits†</b>	1,457,423	11,528,751	Highest	2.5%	52,442-573,812
Nursing Visit	1,005,181	7,539,458	Highest	3.9%	34,757-402,327
Physiotherapy	86,448	738,685	2 <sup>nd</sup> highest	-24.9%	3,920-34,151
Occupational Therapy	74,759	615,215	Highest	10.9%	2,838-30,021
Social Work	5,961	56,973		34.3%	91-3,824
Nutrition and Dietetic	9,199	47,949	Highest	-6.4%	387-4,029
Speech Language Pathology	29,926	273,735		1.4%	1,506-9,617
Case Management	244,073	2,211,107		7.5%	8,870-89,788
<b>Service Hours</b>					
<b>All Hours</b>	4,221,209	34,396,919	2 <sup>nd</sup> highest	2.7%	133,457-1,810,318
Nursing Shift	341,405	2,366,020	2 <sup>nd</sup> highest	25.7%	11,509-126,673
Personal Support Work and Homemaking	3,864,642	31,319,568	2 <sup>nd</sup> highest	0.6%	121,574-1,683,501
Respite	15,162	711,331		n/a	145-5,885
<b>Service Visits per 1,000 population</b>					
<b>All Visits per 1,000 population †</b>	984.6	810.2		-0.7%	725.9-1,075.2
Nursing Visit	679.1	529.8		0.6%	471.2-740.3
Physiotherapy	58.4	51.9		-27.2%	48.9-61.0
Occupational Therapy	50.5	43.2		7.4%	38.7-57.2
Social Work	4.0	4.0		30.1%	0.8-6.8
Nutrition and Dietetic	6.2	3.4	2 <sup>nd</sup> highest	-9.3%	3.5-8.2
Speech Language Pathology	20.2	19.2		-1.8%	16.1-26.5
Case Management	164.9	155.4		4.1%	134.8-182.5
<b>Service Hours per 1,000 population</b>					
<b>All Hours</b>	2,851.8	2,417.3	Highest	-0.6%	2,029.2-3,226.8
Nursing Shift	230.6	166.3	2 <sup>nd</sup> highest	21.8%	138.5-296.2
Personal Support Work and Homemaking	2,610.9	2,201.0	2 <sup>nd</sup> highest	-2.5%	1,830.2-3,000.8
Respite	10.2	50.0		n/a	0.3-42.8

\*Not all LHINs offer the same services or report case management services in the same manner.

\*\*Service rates per 1,000 population are calculated using 2017/18 service levels divided by 2016 population estimates from the Ministry of Finance. Typically 2017 population estimates would be used but they were not available at the sub-region level at time of calculation.

†Includes visits for respiratory, psychology, and 'other' service types (not shown), which are not consistently reported/available in all LHINs.

n/a – not applicable due to significant changes in funding and recording

## Palliative Care

### Services Received at Home by Palliative Patients FY 2016/2017

	Provincial Ranking	LHIN	Range Across HNHB sub-regions
Percent of patients who received palliative home visits(home servicers or physician) in the last 90 days of life	4	38%	35% to 47%
Percent of patients who received palliative home servicers in the last 90 days of life	6	27%	25% to 30%
Percent of patients who had physician home visits in the last 90 days of life	7	27%	20% to 41%
Percent of patients who receive palliative home services who died in hospital	6	23%	10% to 30%
Percent of palliative care patients discharged home from hospital with the discharge status "Home with Support"	7	85%	78% to 88%
Mean days spent at home/residence in last 6 months of life	7	160 days	158 to 163 days

*†Ranking in the province, compared to other LHINs.*

### Interpretation

- In 2016/2017, 38% of patients in Hamilton Niagara Haldimand Brant LHIN received palliative home visits in the last 90 days of life, which is greater than the provincial value of 36%.
  - Within the **Hamilton Niagara Haldimand Brant** LHIN, the **Hamilton** sub-region reported the lowest percentage within the LHIN at 35% and **Niagara North West** sub-region had the highest percentage at 48%.
- In 2016/2017, the percent of patients in Hamilton Niagara Haldimand Brant LHIN who received palliative home servicer visits in the last 90 days of life was marginally higher than the province (27% vs 25%, respectively).
- Within the Hamilton Niagara Haldimand Brant LHIN, all sub-regions reported that 25% or more of patients received home servicer visits in the last 90 days of life.
- In the Hamilton Niagara Haldimand Brant LHIN, the percentage of patients who received physician home visits in the last 90 days of life was 27%, slightly below the provincial percentage (28%).
- Across Ontario, Hamilton Niagara Haldimand Brant LHIN reported that 23% of patients who received palliative home services who died in hospital, which is somewhat lower than the provincial percentage of 25%.
  - There is notable variation of percentages of patients who received palliative care who died in hospital across Hamilton Niagara Haldimand Brant sub-regions. The **Brant** sub-region has the lowest percentage of palliative patients dying in hospital at 10% and **Niagara North West** reports 30% for the 2016/2017 fiscal year.
- Across LHINs, Hamilton Niagara Haldimand Brant reports that 85% of palliative care patients discharged home with "Home with Supports" status in 2016/2017, the same as Ontario.
  - Within **Hamilton Niagara Haldimand Brant**, the sub-regions vary from 78% in **Brant** to 88% in **Hamilton** regarding palliative patients discharged with "Home with Supports" status.
- Hamilton Niagara Haldimand Brant LHIN's mean number of days at home among palliative patients in the last 6 months across all LHINs was 160 days, which was the same as the provincial.
  - **Hamilton Niagara Haldimand Brant** sub-regions are close in mean number of days that palliative patients spend at home in their last 6 months, ranging from 157 days in **Hamilton** to 163 days in Haldimand-Norfolk.

### Palliative Hospital System Measures, Hamilton Niagara Haldimand Brant (FY 2016/17)

	Provincial Ranking	LHIN	Range Across the sub-regions
Percent of patients who had one or more unplanned ED visits in the last 30 days of life	3	52%	48% - 56%
Percent of patients who had two or more unplanned ED visits in the last 30 days of life	4	13%	12% - 18%
Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days	1	16%	12% - 19%
Percent of people who die in hospital (all hospital settings and acute only)	7	51%	42% - 53%
Percent of people who die in acute hospital	3	40%	30% - 44%
Percent of patients who had two or more acute inpatient admissions in the last 30 days of life	1	5%	4% - 6%

### LHIN Comparison

- Hamilton Niagara Haldimand Brant LHIN was **significantly lower** than the province in the following indicators:
  - Percent of patients who had one or more unplanned ED visits in the last 30 days of life
  - Percent of patients who had two or more unplanned ED visits in the last 30 days of life
  - Percent of patients discharged from hospital who visited ED at least once within 30 days
  - Percent of people who died in acute hospital
  - Percent of patients who had two or more acute inpatient admissions in the last 30 days of life
    - For percent of patients who had one or more unplanned ED visits in the last 30 days of life, the following sub-regions were **significantly lower** than the province: **Hamilton, Burlington, and Brant.**
    - For percent of patients who had two or more unplanned ED visits in the last 30 days of life, the following sub-regions were **significantly lower** than the province: **Hamilton, Burlington, and Brant.** **Haldimand Norfolk** was **significantly higher** than the province.
    - For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, the following sub-regions were **significantly lower** than the province: **Hamilton, Burlington, and Brant.**
    - For percent of people who died in hospital (all hospital settings and acute only), the following sub-regions were **significantly lower** than the province: **Burlington, Niagara North West, and Brant.**
    - For percent of people who died in acute hospital, the following sub-regions were **significantly lower** than the province: **Burlington, Niagara North West, Niagara, and Brant.**
    - For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, the following sub-regions were **significantly lower** than the province: **Hamilton, Burlington, Niagara, and Brant.**

### Change Over Time

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of 0% was observed across the Hamilton Niagara Haldimand Brant LHIN ranking 3<sup>rd</sup> provincially.
  - Across sub-regions, **Burlington** (2%) and **Niagara North West** (-3%) were observed highest and lowest, respectively.
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of 2% was observed across the Hamilton Niagara Haldimand Brant LHIN ranking 2<sup>nd</sup> provincially.
  - Across sub-regions, **Burlington** (8%) and **Niagara North West** (-7%) were observed highest and lowest, respectively.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, a mean annual growth rate of 0% was observed across the Hamilton Niagara Haldimand Brant LHIN ranking 6<sup>th</sup> provincially.
  - Across sub-regions, **Haldimand Norfolk** (9%) and **Niagara** (-5%) were observed highest and lowest, respectively.
- For percent of people who die in hospital (all hospital settings and acute only), a mean annual growth rate of -1% was observed across the Hamilton Niagara Haldimand Brant LHIN ranking 5<sup>th</sup> provincially.
  - Across sub-regions, **Burlington** (1%) and **Haldimand Norfolk** (-4%) were observed highest and lowest, respectively.
- For percent of people who die in acute hospital, a mean annual growth rate of -1% was observed across the Hamilton Niagara Haldimand Brant LHIN ranking 4<sup>th</sup> provincially.
  - Across sub-regions, **Burlington** (2%) and **Niagara North West** (-3%) were observed highest and lowest, respectively.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, a mean annual growth rate of 1% was observed across the Hamilton Niagara Haldimand Brant LHIN ranking 6<sup>th</sup> provincially.
  - Across sub-regions, **Haldimand Norfolk** (9%) and **Brant** (-6%) were observed highest and lowest, respectively.

## Emergency Department

### Emergency Department Utilization

- In 2016/17, there were 690,930 ED visits to Hamilton Niagara Haldimand Brant LHIN hospitals, an increase of 6.2% from 2013/14. In the same time-period, the number of ED visits in the province increased by 6.5%.
- Hamilton Niagara Haldimand Brant's crude ED visit rate of 479.3 ED visits per 1,000 population was 6<sup>th</sup> highest in the province, higher than the provincial rate (442.2). This represented a 3.7% increase in crude visit rate in the LHIN from 2013/14 during which time the provincial crude visit rate climbed by 3.0%.
- Age adjusted ED visit rates per 1,000 population were highest for seniors 80+ at 892 visits per 1,000 population, followed by seniors aged 65-79 (512 visits / 1,000 population), children aged 0-17 (483 visits per 1,000 population), adults aged 18-44 (461 visits per 1,000 population), while adults aged 45-64 years had the lowest usage rate in LHIN at 409 visits per 1,000 population, or less than 50% of the highest user age group.
  - Burlington residents had the lowest ED visit rate of Hamilton Niagara Haldimand Brant's 6 sub-regions, at 278 visits per 1000 population-
  - Haldimand Norfolk sub-region had the highest crude ED visit rate at 681 visits per 1,000 population.
  - Overall, 4 of Hamilton Niagara Haldimand Brant 6 sub-regions had crude ED visit rates over the provincial value.
- Between 2013/14 and 2016/17 the number of Hamilton Niagara Haldimand Brant LHIN residents visiting the ED with lower acuity levels (CTAS IV and V) declined 2.9% to 209,539 visits. During this same time-period, visits by Ontario residents with CTAS IV and V declined 2.2%.
- Between 2013/14 and 2016/17 the number of visits with CTAS III increased by 7.8% and CTAS I & II increased by 19.9%, while provincially these numbers increased by 9.4% and 15.8% respectively.
- Overall, Hamilton Niagara Haldimand Brant LHIN ranked 9<sup>th</sup> highest in the province in proportion of ED visits by residents that were lower acuity (29.9% for Hamilton Niagara Haldimand Brant, and 33.5% for the province).
  - 4 out of 6 of Hamilton Niagara Haldimand Brant's sub-regions had a lower proportion of ED visits with lower acuity (CTAS IV and V) than the province.
  - Burlington had the lowest proportion of ED visits with lower acuity of the LHIN's 6 sub-regions, at 20.7%, and was the 8<sup>th</sup> lowest of all sub-regions in the province while Haldimand Norfolk had the highest at 45.1%.
- The most common causes for ED visits for by Hamilton Niagara Haldimand Brant LHIN residents were diseases or disorders of the digestive system, diseases or disorders of skin & breast and diseases or disorders of the ear, nose or throat, and accounted for 9.7%, 8.4%, and 8.3% of ED visits by Hamilton Niagara Haldimand Brant LHIN residents respectively.
- Follow-up examinations and other non-emergent conditions 9<sup>th</sup> as a cause of ED visits and accounted for 4.8% of ED visits by Hamilton Niagara Haldimand Brant LHIN residents.
- 17.3% of the patients who visited ED in Hamilton Niagara Haldimand Brant LHIN hospitals arrived via ambulance in FY16/17, as compared to 15.6% for the province.
  - The proportion of ED visits that arrived by ambulance ranged from a low of 11.3% in Haldimand Norfolk sub-region to a high of 19.9% in Burlington.
- 11.0% of the patients who visited ED in Hamilton Niagara Haldimand Brant LHIN hospitals were admitted in FY16/17, as compared to 9.8% for the province.
  - The proportion of ED visits that resulted in a patient being admitted to hospital ranged from a low of 7.4% in Haldimand Norfolk sub-region to a high of 15.2% in Burlington.
- 4.5% of the patients who visited ED in Hamilton Niagara Haldimand Brant LHIN hospitals left without completing treatment in FY16/17, as compared to 3.9% for the province.

- 4.6% of ED visits to Hamilton Niagara Haldimand Brant LHIN hospitals were by patients who did not reside in Hamilton Niagara Haldimand Brant LHIN (inflow). This compares to 5.9% of ED visits by Hamilton Niagara Haldimand Brant LHIN residents that were accessed in other LHINs (outflow).

#### Top 10 Reasons for Emergency Department Visits by LHIN, 2016/17

Leading CACS groups, by LHIN of patient	HNHB	
	#	% of total visits
(B128) Disease or Disorder Digestive System	67,755	9.7%
(B132) Disease or Disorder Skin & Breast	59,058	8.4%
(B112) Disease or Disorder Ear, Nose or Throat	58,356	8.3%
(B136) Disease or Disorder Musculoskeletal and Connective Tissue	39,371	5.6%
(B180) Contusion, Dislocation, Nerve & Other Soft Tissue Injury	39,012	5.6%
(B005) Other Condition with Acute Admission/Transfer	37,514	5.4%
(B122) Other Disease or Disorder Cardiac System	36,537	5.2%
(B116) Disease or Disorder Respiratory System	35,388	5.1%
(B187) Follow-up Examination and Other Non Emergent Condition	33,435	4.8%
(B188) Open Wound and Vascular Injury	29,230	4.2%



Measure—LHIN of Hospital	HNHB		Ontario	
	#	LHIN % change 2013/14- 2016/17	#	Ontario % change 2013/14- 2016/17
Visits	690,930	6.2%	6,312,121	6.5%
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	147,688	18.1%	1,284,741	15.9%
III (urgent)	333,718	7.0%	2,876,687	9.6%
IV & V (less urgent/non urgent)	207,452	-2.5%	2,128,914	-2.0%
<b>% visits by CTAS level†</b>				
I & II (resuscitation/emergent)	21.4%		20.4%	
III (urgent)	48.3%		45.6%	
IV & V (less urgent/non urgent)	30.0%		33.7%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	17.3%		15.6%	
% of visits that were admitted	11.0%		9.8%	
% of visits that left without completing treatment	4.5%		3.9%	
<b>% Inflow visits</b>	4.6%			

Measure—LHIN of Patient	HNHB		Ontario	
	#	LHIN % change 2013/14- 2016/17	#	Ontario % change 2013/14- 2016/17
Visits	700,170	6.7%	6,183,151	6.4%
ED visit rate/1,000 population	479.3	3.7%	442.2	3.0%
<b>Age-specific ED visit rates per 1,000 population</b>				
ED visit rate, age 0-17 years	483		429	
ED visit rate, age 18-44 years	461		411	
ED visit rate, age 45-64 years	409		388	
ED visit rate, age 65-79 years	512		516	
ED visit rate, age 80+ years	892		913	
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	149,913	19.9%	1,265,237	15.8%
III (urgent)	338,665	7.8%	2,825,385	9.4%
IV & V (less urgent/non urgent)	209,539	-2.9%	2,070,962	-2.2%
<b>% visits by CTAS level</b>				
I & II (resuscitation/emergent)	21.4%		20.5%	
III (urgent)	48.4%		45.7%	
IV & V (less urgent/non urgent)	29.9%		33.5%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	17.0%		15.8%	
% of visits that were admitted	10.9%		9.9%	
% of visits that left without completing treatment	4.4%		3.8%	
% Outflow visits	5.9%			

# ED Visit Utilization Summary, by sub-region of Patient Residence, 2016/17      HNHB LHIN

	Hamilton	Burlington	Niagara North West	Niagara	Brant	Haldimand Norfolk	LHIN	Ontario
<b>Sub-Region of Patient Residence</b>								
Visits	269,220	55,842	27,139	202,979	77,985	76,249	700,170	6,183,151
ED visit rate/1,000 population	480	278	422	521	532	681	479.3	442
% Outflow to other LHINs	3.7%	28.8%	4.2%	2.6%	5.7%	14.0%	5.9%	
<b>Age-specific ED visit rates per 1,000 population</b>								
ED visit rate, age 0-17 years	506	261	433	502	534	717	483	429
ED visit rate, age 18-44 years	445	234	395	527	550	725	461	411
ED visit rate, age 45-64 years	420	224	346	441	446	557	409	388
ED visit rate, age 65-79 years	525	334	455	535	531	674	512	516
ED visit rate, age 80+ years	878	765	916	901	939	1073	892	913
<b># visits by CTAS level</b>								
# CTAS Level I & II visits	51423	15618	4481	53082	15332	11501	149,913	12715
# CTAS Level III visits	139843	28488	12452	94908	36930	29566	338,665	20741
# CTAS Level IV & V visits	77195	11561	10071	54845	25697	34366	209,539	13353
<b>% visits by CTAS level</b>								
I & II (resuscitation/emergent)	19.1%	28.0%	16.5%	26.2%	19.7%	15.1%	21.4%	20.5%
III (urgent)	51.9%	51.0%	45.9%	46.8%	47.4%	38.8%	48.4%	45.7%
IV & V (less urgent/non urgent)	28.7%	20.7%	37.1%	27.0%	33.0%	45.1%	29.9%	33.5%
<b>Other visit characteristics</b>								
% of visits that arrived by ambulance	17.8%	19.9%	14.4%	17.8%	15.6%	11.3%	17.0%	15.8%
% of visits that were admitted	11.2%	15.2%	9.7%	10.4%	10.9%	7.4%	10.9%	9.9%
% of visits that left without completing treatment	4.7%	4.1%	3.4%	4.0%	5.3%	4.2%	4.4%	3.8%

### Emergency Department Performance

- Since fiscal year 2013/14, 90<sup>th</sup> percentile ambulance offload times had increased to 97 minutes (over twice above the provincial value rate of 46 minutes) in fiscal year 2017/18.
- Overall ED volumes for non-admitted high acuity visits had increased from fiscal year 2013/14 (316,203) to 2017/18 (353,212).
- ED LOS for Admitted patients (90<sup>th</sup> percentile) had increased since fiscal year 2013/14, to 46 hours (well above provincial rate of 33 hours) in fiscal year 2017/18.
- Hamilton Niagara Haldimand Brant LHIN was the **lowest** ranked LHIN for % Within Target of 8 Hrs – Admitted, at 26% in fiscal year 2017/18.
- Hamilton Niagara Haldimand Brant LHIN was ranked 2<sup>nd</sup> lowest for ED LOS for both Non-Admitted Low and High Acuity patients (90<sup>th</sup> percentile) in fiscal year 2017/18.
- Hamilton Niagara Haldimand Brant LHIN had the **longest** 90<sup>th</sup> percentile ED LOS (overall) in fiscal year 2017/18, at 11 hours (above provincial rate of 9 hours).
- Hamilton Niagara Haldimand Brant LHIN ranked amongst the bottom four LHINs for the following measures, and are all longer than the provincial value wait time: Time to Disposition (All) - 90th Percentile, Time to Disposition for Admitted - 90th Percentile, Time to Disposition for Non-Admitted High Acuity - 90th Percentile, Time to Disposition for Non-Admitted Low Acuity - 90th Percentile, Time to Inpatient Bed - 90th Percentile, and Time to PIA - 90th percentile.

## Emergency department visits, Hamilton Niagara Haldimand Brant LHIN

Measure	Fiscal Year					Range across sites, FY 17/18
	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	
All emergency department visits						
ED Volumes (All)	533,327	551,768	568,808	572,817	567,987	19,794 - 77,493
Ambulance Offload Time - 90th Percentile (mins)	59	52	48	76	97	12 - 149
Time to PIA - 90th percentile	3	3	3	3	3	2 - 4
% with Time to PIA <= 2 Hours	76%	76%	74%	72%	69%	55% - 92%
Consult Request to Arrival - 90th Percentile	4	4	4	4	4	0 - 6
% of Consults with Consult Request to Arrival <= 2 Hrs	71%	71%	72%	72%	69%	50% - 100%
Time to Disposition (All) - 90th Percentile	8	8	8	8	8	3 - 10
ED LOS - 90th Percentile	11	10	10	11	11	3 - 21
Non-admitted low acuity ED visits						
ED Volumes - Non-Admitted Low Acuity	144,659	144,502	143,358	143,769	138,922	5,879 - 18,586
% Within Target of 4 Hrs - Non-Admitted Low Acuity	87%	86%	86%	86%	82%	63% - 96%
Time to Disposition for Non-Admitted Low Acuity - 90th Percentile	4	4	5	5	5	3 - 7
ED LOS for Non-Admitted Low Acuity - 90th Percentile	4	4	5	5	5	3 - 7
Non-admitted high acuity ED visits						
ED Volumes - Non-Admitted High Acuity	316,230	334,232	349,434	352,815	353,212	9,237 - 49,747
% Within Target of 8 Hrs - Non-Admitted High Acuity	92%	93%	92%	92%	92%	85% - 100%
Time to Disposition for Non-Admitted High Acuity - 90th Percentile	7	7	7	7	8	4 - 9
ED LOS for Non-Admitted High Acuity - 90th Percentile	7	7	7	7	8	4 - 9
Admitted ED visits						
ED Volumes - Admitted	71,366	71,608	74,187	74,495	73,799	38 - 20,392
Admission Rate - CTAS 1	61%	61%	61%	61%	58%	0% - 78%
Admission Rate - CTAS 2	27%	26%	26%	26%	25%	0% - 41%
Admission Rate - CTAS 3	13%	12%	12%	12%	12%	0% - 21%
Admission Rate - CTAS 4	2%	2%	2%	2%	2%	0% - 4%
Admission Rate - CTAS 5	1%	1%	1%	1%	1%	0% - 2%
Time to Disposition for Admitted - 90th Percentile	13	13	13	13	13	7 - 18
ED LOS for Admitted - 90th Percentile	37	35	30	39	46	8 - 72
% Within Target of 8 Hrs - Admitted	32%	31%	31%	28%	26%	11% - 89%
Time to Inpatient Bed - 90th Percentile	28	26	23	28	37	3 - 62

## Acute Care

### Acute Care Utilization by Residents of the HNHB LHIN

#### Acute Separations

- In 2016/17, there were 120,167 acute separations (discharges), 654,012 acute days, and 781,258 total days (including acute and alternate level of care days) for Hamilton Niagara Haldimand Brant (HNHB) LHIN residents.
- The acute separation rate for HNHB LHIN residents was 82 separations per 1,000 residents in 2016/17 but varied substantially by sub-region of patient residence.
  - Across the LHIN, rates were the lowest for residents of **Burlington** sub-region and highest for residents of **Haldimand Norfolk**.
- From 2013/14 to 2016/17, the overall acute separation rate for HNHB LHIN residents increased by 1.3%.
  - Provincially, **Hamilton** had the **highest** volume of separations by sub-region of patient and **Niagara** the 3<sup>rd</sup> highest (45,992 and 33,791, respectively)

#### Acute Days

- The rate of acute days for HNHB LHIN residents was 448 acute days per 1,000 residents in 2016/17.
  - Rates were the lowest for residents of the **Burlington** sub-region (370) and highest for **Haldimand Norfolk** (536) in 2016/17.

#### Length of Stay

- The mean total length of stay (including acute days and days waiting for an alternate level of care) for HNHB LHIN residents was 6.5 days, while the mean acute length of stay was 5.4 days in 2016/17.

#### HIG Weight

- The Ontario HBAM Inpatient Grouper (HIG) (similar to CMG+) aggregates acute care separations with similar resource use and clinical characteristics based on most responsible diagnosis and/or principal intervention. The HIG weight is a relative cost value that reflects the resources consumed during each acute care stay. The mean HIG weight for HNHB LHIN residents remained constant between 2014/15 and 2016/17 at 1.59.
- The top 3 HIGs accounting for the highest proportion of acute care days for HNHB LHIN residents in 2016/17 were: 196-heart failure without coronary angiogram, 139c-chronic obstructive pulmonary disease with lower respiratory infection, and 138-viral/unspecified pneumonia.

### Acute Care Hospital Utilization (Excluding ALC) LHIN of Patient, HNHB LHIN, 2016/17

	HNHB LHIN Residents	Ontario Residents*	Rank among LHINs	Range across HNHB sub-regions
<b>Acute Care Measures</b>				
Total Population	1,460,700	13,982,984		64,309 – 561,022
Acute Separations	120,167	1,028,979		4,927 – 45,989
Acute Separation Rate per 1,000 Population	82	74		67 - 94
Acute Days	654,012	5,455,693		25,525 – 260,996
Acute Days Rate per 1,000 Population	448	390	4 <sup>th</sup> Lowest	370 – 536
Total Days	781,258	6,477,528		28,428 – 322,368
Total Days Rate per 1,000 Population	535	463	4 <sup>th</sup> Lowest	425 – 617
mean Acute LOS	5.4	5.3		5.1 – 5.7
mean Total LOS	6.5	6.3		5.8 – 7.0
Mean HIG Weight	1.59	1.55	3 <sup>rd</sup> Lowest	—
<b>Leading HIGs (Acute Care Days)†</b>				
(196) Heart Failure w/o Coronary Angiogram	25,007	175,995		827 – 10,720
(139c) Chronic Obstructive Pulmonary Disease with Lower Respiratory Infection	11,901	81,926		226 – 4,361
(138) Viral/Unspecified Pneumonia	11,861	119,810		326 – 3,291

\* Ontario residents exclude Out-of-province

† Leading HIGs include Out-of-province for Ontario Values

### Acute Care Utilization for HNHB LHIN Facilities

- There were 119,054 acute separations, 650,836 acute days, and 777,278 total days at HNHB LHIN hospitals in 2016/17.

#### Separations

- Separations increased by 4.0% between 2013/14 and 2016/17. During this same period, for Ontario hospitals overall, separations increased by 3.8%.

#### Acute Days

- Acute days remained stable between 2013/14 and 2016/17. Acute days increased by 2.2%, for all Ontario hospitals overall, during this same period.
- Mean acute length of stay for 2016/17 at hospitals in the HNHB LHIN was 5.5 days. This is higher than the provincial result of 5.3 days.

#### Total Days

- Total days increased by 1.3% between 2013/14 and 2016/17. Overall Ontario hospitals had an increase of 4.2% of total days during this period.

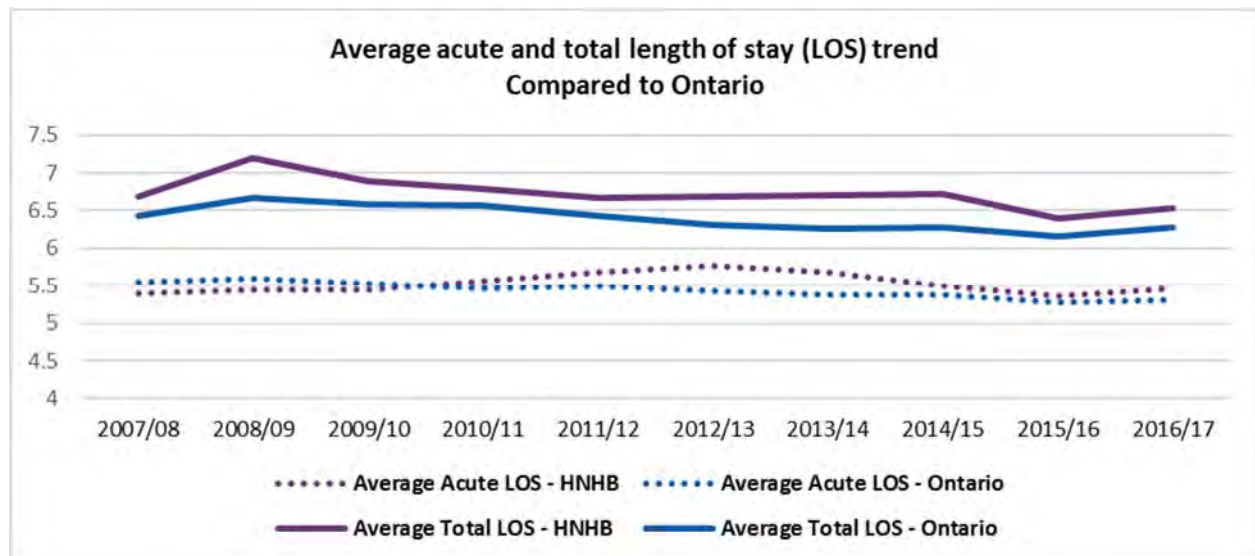
- Mean total length of stay for this LHIN was 6.5 days. Higher than the mean total length of stay for Ontario, which was 6.3 days.

#### HBAM Group (HIG) Weight

- Mean HIG weight for HNHB LHIN hospitals in 2016/17 of 1.60 was higher than the provincial value of 1.55.

#### Acute care hospital utilization, HNHB LHIN, 2016/17

Measure	HNHB LHIN	Ontario hospitals	Comments	LHIN % change	Range within LHINs
				2013/14 - 2016/17	
Acute separations	119,054	1,041,308		4.0%	26,295 - 159,315
Total days	777,278	6,542,800		1.3%	193,259 - 1,050,391
Mean total LOS	6.5	6.3			5.0 - 7.3
Acute days	650,836	5,518,912		-0.1%	142,875 - 917,167
Mean acute LOS	5.5	5.3			4.5 - 5.8
Mean HIG weight	1.60	1.55			1.23 - 1.94





## Acute Care Inflow/Outflow

### Inflow

- 6.7% of hospital separations from HNHB LHIN hospitals were by non-HNHB LHIN residents

### Outflow

- 7.6% of separations for HNHB LHIN residents were from hospitals outside HNHB LHIN

### Inflow - Outflow, HNHB LHIN, 2016/17

Measure	HNHB LHIN	Ontario Hospitals	Comments	Range across HNHB sub-regions
Acute separations, LHIN of hospital	119,062	1,041,322	2 <sup>nd</sup> highest	4,656 – 43,887
Acute separations, LHIN of patient	120,171	1,041,322	Highest	4,927 – 45,992
% inflow	6.7%			NA
% outflow	7.6%			4.6% - 24.7%

## Post-Acute Care

### Inpatient Rehabilitation Utilization

#### Rehabilitation Admissions

- The number of total rehabilitation admissions at the LHIN hospitals, including both general admissions and special admissions, was 2,751 in FY 16/17, an increase of 2.8% from FY 13/14.
  - The number of general rehabilitation admissions was 2,176 in FY 16/17, an increase of 4.2% from FY 13/14.
  - The number of special rehabilitation admissions was 575 in FY 16/17, a decrease of 2.0% from FY 13/14.
- The number of total rehabilitation admissions of the LHIN residents, was 2,788 in FY 16/17, an increase of 3.1% from FY 13/14.

#### Active Cases and Discharges

- In FY 16/17, the number of active cases was 3,645 while the number of discharges was 2,772.

#### Inpatient Days

- The number of total inpatient days was 73,239 in FY 16/17.
- The mean length of stay at the LHIN hospitals was 26.4 days.
- By sub-region of patient residence:
  - **Brant** residents had the longest length of stay at 31.4 days.
  - **Hamilton** residents had the shortest length of stay at 22.6 days.

#### Admission Rate

- The number of admissions per 100,000 adults (age 18+) was 235.1 in FY 16/17, a decrease of 0.5% from FY 13/14.
  - Age group 18-44 years had the lowest admission rate, 25.3 per 100,000 population.
  - Age group 80+ years had the highest admission rate, 1,567.8 per 100,000 population.
- By sub-region of patient residence:
  - **Hamilton** residents had the highest admission rate at 321.8.
  - **Niagara North West** residents had the lowest admission rate at 135.3.

#### Active Case Rate

- The number of active cases per 1,000 population age 18+ was 300.0.

#### Discharge Rate

- The number of discharges per 1,000 population age 18+ was 237.1.

#### Leading Rehabilitation Group

- The 5 leading rehabilitation groups that contributed to the total admissions in FY 16/17 were:
  - Other disabilities accounted for 684 admissions or 24.5% of the total admissions.
  - Stroke accounted for 674 admissions or 24.2% of the total admissions.
  - Fracture of lower extremity accounted for 423 admissions or 15.2 % of the total admissions.
  - Replacement of lower extremity accounted for 341 admissions or 12.2% of the total admissions.
  - Cardiac accounted for 121 admissions or 4.3% of the total admissions.

### Outflow

- Hospitals outside the LHIN accounted for 7.5% of the total rehabilitation admissions of the LHIN residents
- By sub-region of patient residence:
  - Burlington residents had the highest rate of admission to hospitals outside the LHIN at 23.5%.
  - Hamilton residents had the lowest rate of admission to hospitals outside the LHIN at 2.6%.

### Inflow

- 6.3% of the rehabilitation admissions at the hospitals in the LHIN were residents from outside HNHb.

Rehab Admissions, Active Cases, Discharges and Days*	LHIN	Ontario	Ranking Among LHINs**	% Change 2013/14-2016/17	Range across sub-region
<b>LHIN of hospital</b>					
General admissions	2,176	28,691		4.2%	
Special admissions	575	4,444		-2.0%	
Total admissions	2,751	33,135		2.8%	
% Inflow inpatient rehab admissions	6.3%				
Active Cases	3,645	43,329			
Discharges	2,772	33,133			
Total Days (discharged cases only)	73,239	839,228			
Mean Length of Stay (discharged cases only)	26.4	25.3			
<b>LHIN of patient</b>					
Total population age 18+	1,186,113	11,287,810		3.5%	
Total admissions	2,788	33,016		3.1%	69-1,465
Admissions/100,000 population age 18+	235.1	292.5		-0.5%	135.3-321.8
Admissions/100,000 population age 18-44 years	25.3	30.4	2 <sup>nd</sup> lowest		10.3-43.7
Admissions/100,000 population age 45-64 years	118.0	150.9	2 <sup>nd</sup> lowest		60.0-150.4
Admissions/100,000 population age 65-79 years	503.3	689.3			256.3-743.9
Admissions/100,000 population age 80+ years	1,567.8	2,311.8			547.3-2,545.0
% Outflow inpatient rehabilitation admissions	7.5%				2.6%-23.5%
Active cases per 1,000 population age 18+	300.0	382.3	4 <sup>th</sup> lowest		174.8-421.3
Discharges per 1,000 population age 18+	237.1	292.5			135.3-321.6
Mean Length of Stay (discharged cases only)	24.7	25.3			22.6-31.4

	Hamilton	Burlington	Niagara North West	Niagara	Brant	Haldimand Norfolk
<b>Measure</b>						
Rehab Admissions	1,465	361	69	513	263	128
Rehab Admission Rate per 100,000 Population	321.8	223.0	135.3	159.1	226.6	140.7
Rehab Active Cases	1,918	454	95	596	351	159
Rehab Active Case Rate per 100,000 Population	421.3	280.4	186.3	184.8	302.5	174.8
Rehab Discharges	1,464	368	69	525	272	127
Rehab Discharge Rate per 100,000 Population	321.6	227.3	135.3	162.8	234.4	139.6
Total Inpatient Days (discharged cases only)	33,134	8,517	1,905	14,248	8,544	3,343
mean LOS (discharged cases only)	22.6	23.1	27.6	27.1	31.4	26.3
<b>Age specific admission rates per 100,000 population</b>						
18-44 years	23.8	10.3	39.3	26.5	43.7	27.2
45-64 years	150.4	60.0	107.9	118.6	107.1	71.9
65-79 years	743.9	484.5	256.3	327.4	517.1	276.4
80+ years	2,545.0	1,794.0	547.3	631.4	1,605.6	795.8

Rehab Admissions, by Leading Rehabilitation Groups*	LHIN	% of Total Rehab Admission
<b>LHIN of Patient</b>		
18-Other disabilities	684	24.5%
01-Stroke	674	24.2%
10-Fracture of lower extremity	423	15.2%
11-Replacement of lower extremity	341	12.2%
13-Cardiac	121	4.3%
12-Other orthopaedic		
03-Non-traumatic brain injury		
06-Non-traumatic spinal cord injury		
07-Amputation		
02-Traumatic brain injury		
16-Major multiple trauma		

\* FY 16/17 data unless noted otherwise.

\*\* Top or bottom 4 ranking in the province, compared to other LHINs.

## Complex Continuing Care Utilization

### Complex Continuing Care

- In 2016/17, there were 5,519 CCC active cases treated in HNHB LHIN hospitals and residents from outside the LHIN accounted for 2.4% of these active cases. In 2016/17, there were 4,733 admissions and 4,688 discharges from HNHB LHIN hospital CCC units. HNHB LHIN hospitals had a mean LOS of 53.0 days - ranking 6<sup>th</sup> across LHINs.
- There were increases in the number of active cases (0.8%), admissions (1.2%), and discharges (1.2%) for HNHB LHIN hospital CCC units between 2013/14 and 2016/17, while there was a 0.5% decrease in total days.
- During the period, the mean length of stay in CCC beds decreased from 53.9 days to 53.0 days.
- In 2016/17, there were 5,488 CCC active cases for HNHB LHIN residents, and 1.8% of these cases were treated in hospitals outside the LHIN.
- The active case rate for HNHB LHIN residents was higher than the provincial value.

### Utilization of Complex Continuing Care, HNHB LHIN and Ontario, 2016/17

Measure	HNHB LHIN		Ontario	
	LHIN Values	% Change 2013/14- 2016/17	Provincial Value	% Change 2013/14- 2016/17
<b>LHIN of Hospital</b>				
Active Cases	5,519	0.8%	29,466	-0.1%
% Inflow	2.4%			
Admissions	4,733	1.2%	24,108	0.5%
Discharges	4,688	1.2%	23,995	-0.2%
Total Days	248,466	-0.5%	1,855,227	-2.0%
mean LOS	53.0		77.3	
<b>LHIN of Patient</b>				
Active Cases	5,488	0.7%	29,366	0.3%
Active cases/100,000 population	375.7	-2.2%	210.0	-2.9%
% Outflow	1.8%			
Admission	4,715	1.4%	24,022	0.8%
Admissions/100,000 population	322.8		171.8	
Discharges	4,659	1.3%	23,908	0.1%
Discharges/100,000 population	319.0		171.0	
Total Days	247,019	-1.0%	1,850,599	-1.1%
mean LOS	53.0		77.4	

## Alternate Level of Care

### LHIN overview<sup>5</sup>

Hamilton Niagara Haldimand Brant LHIN						
Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Rank
Acute ALC Days (closed cases)	116,386	141,344	123,274	126,426	NV	13
% ALC Days (Acute Inpatient closed cases)	15.2%	18.2%	16.2%	16.3%	NV	9
Volume of Closed Cases	9,026	10,591	9,916	9,232	8,015	13
Volume of Closed Cases - Complex Continuing Care	2,046	2,349	2,358	2,148	1,821	
Volume of Closed Cases – Rehabilitation	1,450	1,574	1,439	1,221	1,237	
Volume of Closed Cases - Supervised or Assisted Living	603	984	1,306	1,364	1,283	
90 <sup>th</sup> Percentile Wait of Closed Cases (Days)	41	41	37	41	54	8
90 <sup>th</sup> Percentile Wait of Closed Cases - Complex Continuing Care	18	23	20	25	31	
90 <sup>th</sup> Percentile Wait of Closed Cases - Rehabilitation	15	15	14	13	14	
90 <sup>th</sup> Percentile Wait of Closed Cases - Supervised or Assisted Living	49	51	61	62	67	
Volume of Open Cases on the last day of the year	543	482	490	486	504	12
Volume of Open Cases - Home with CCAC Services	131	95	73	45	105	
Volume of Open Cases - Long Term Care	182	110	121	181	96	
Volume of Open Cases - Supervised or Assisted Living	39	94	120	111	130	
90 <sup>th</sup> Percentile Wait of Open Cases	145	162	147	232	194	4
90 <sup>th</sup> Percentile Wait of Open Cases - Home with CCAC Services	28	34	28	30	82	
90 <sup>th</sup> Percentile Wait of Open Cases - Long Term Care	209	364	306	298	526	
90 <sup>th</sup> Percentile Wait of Open Cases - Supervised or Assisted Living	1,160	148	115	232	122	
Throughput Ratio (discharged case/newly added cases)	0.98	1.01	1.00	1.00	0.98	8
% of Cases Designated ALC Within 1 Day	5.8%	6.1%	6.5%	5.9%	4.5%	3
% of Cases Designated ALC Within 2 Days	9.7%	10.4%	11.7%	10.6%	7.3%	2
% of Cases Designated ALC Within 3 Days	15.0%	16.4%	18.5%	16.7%	11.6%	2
ALC Rate - All Inpatient Services	13.9%	15.8%	13.4%	14.1%	15.4%	9
ALC Rate - Acute Inpatient Services	14.9%	17.9%	15.8%	15.9%	17.6%	8
ALC Rate - Post-Acute Inpatient Services	12.2%	12.3%	9.5%	11.0%	11.9%	7
ALC Rate - CCC Inpatient Services	17.9%	17.3%	12.9%	15.4%	18.6%	7
ALC Rate - Rehab Inpatient Services	7.2%	8.0%	5.5%	7.3%	5.5%	6
ALC Rate - Mental Health Inpatient Services	5.3%	6.3%	6.1%	6.1%	5.1%	4

<sup>5</sup> One hospital facility in the HNHB LHIN does not participate in WTIS reporting.

## Closed ALC Cases

### Acute ALC Days

- Acute ALC Days increased by 10,040 from FY 13/14 to FY 16/17

### % ALC Days (Acute Inpatient)

- % ALC Days increased from 15.2% in FY 13/14 to 16.3% in FY 16/17

### Volume of Closed Cases

- The volume of closed cases for all inpatient services decreased by 11% from 9,026 in FY 13/14 to 8,015 in FY 17/18.
  - Complex Continuing Care – number of closed cases decreased by 11% from 2,046 in FY 13/14 to 1,821 in FY 17/18
  - Rehabilitation – number of closed cases decreased by 15% from 1,450 in FY 13/14 to 1,237 in FY 17/18
  - Supervised or Assisted Living – number of closed cases increased by 113% from 603 in FY 13/14 to 1,283 in FY 17/18

### 90<sup>th</sup> Percentile Wait of Closed Cases

- The wait time for closed cases (all inpatients services and all discharge destinations) increased by 32% from 41 days in FY 13/14 to 54 days in FY 17/18. 7<sup>th</sup> in HNHB at the end of FY 17/18.
  - Complex Continuing Care – wait time increased by 72% from 18 days in FY 13/14 to 31 days in FY 17/18.
  - Rehabilitation – wait time decreased by 7% from 15 days in FY 13/14 to 14 days in FY 17/18.
  - Supervised or Assisted Living – wait time increased by 37% from 49 days in FY 13/14 to 67 days in FY 17/18.

### Wait Time by Sub-Region of Patient Residence

- **Burlington** residents had the longest wait in the LHIN at 104 days; **Brant** had the shortest at 33 days.
- **Burlington** is 4<sup>th</sup> highest in province
- **Haldimand Norfolk** is 8<sup>th</sup> highest in province

## Open ALC Cases

### Volume of Open Cases

- The number of ALC waitlist entries open across all inpatient bed types decreased by 7% from 543 at the end of FY 13/14 to 504 at the end of FY 17/18.
  - Home with CCAC Services – number of open cases decreased by 20% from 131 at the end of FY 13/14 to 105 at the end of FY 17/18
  - Long-term Care – number of open cases decreased by 47% from 182 at the end of FY 13/14 to 96 at the end of FY 17/18
  - Supervised or Assisted Living – number of open cases increased by 233% from 39 at the end of FY 13/14 to 130 at the end of FY 17/18

### 90<sup>th</sup> Percentile Wait of Open Cases

- The wait time for open cases (all inpatients services and all discharge destinations) increased by 34% from 145 days at the end of FY 13/14 to 194 days at the end of FY 17/18. Patients awaiting discharge from HNHB LHIN hospitals had waited 140 days longer than patients who were discharged in 17/18, and had waited the 11<sup>th</sup> longest across LHINs at the end of FY 17/18.

- Home with CCAC Services – wait time increased by 193% from 28 days at the end of FY 13/14 to 82 days at the end of FY 17/18.
- Long-term Care – wait time increased by 152% from 209 days at the end of FY 13/14 to 526 days at the end of FY 17/18.
- Supervised or Assisted Living - wait time decreased by 89% from 1,160 days at the end of FY 13/14 to 122 days at the end of FY 17/18.

#### Wait Time by Sub-Region of Patient Residence

- **Hamilton** residents had the longest wait in the LHIN at 329 days; **Niagara** had the shortest at 88 days

#### ALC Wait Time (Days) by Sub-Region of Patient Residence

	Haldimand	LHIN			
Closed & Open Cases - All Discharge Destinations by Sub-Region	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
<i>90<sup>th</sup> Percentile Wait of Closed Cases</i>					
401 HAMILTON	48	48	47	49	64
402 BURLINGTON	35	41	45	77	104
403 NIAGARA NORTH WEST	57	59	52	48	52
404 NIAGARA	31	32	23	27	41
405 BRANT	32	34	27	33	33
406 HALDIMAND NORFOLK	58	55	56	59	94
<i>90<sup>th</sup> Percentile Wait of Open Cases</i>					
401 HAMILTON	179	243	185	288	329
402 BURLINGTON	132	355	209	319	258
403 NIAGARA NORTH WEST	0	26	16	67	131
404 NIAGARA	85	83	82	100	88
405 BRANT	117	123	115	350	170
406 HALDIMAND NORFOLK	62	208	510	105	227

#### Hospital Processes and Capacity

##### ALC Throughput Ratio

- In the HNHB LHIN, the throughput ratio the throughput ratio increased from 0.98 in FY 13/14 to 1.01 in FY 14/15 and decreased to 0.98 by FY 17/18

##### Percentage of Patients Designated ALC within 1, 2 & 3 Days of Admission

- The percentage of patients that have been designated as requiring an alternate level of care within one, two and three days of admission to hospital decreased over the last five years in the HNHB LHIN from FY 13/14 to FY 17/18. All 3 measures are below the provincial value (12<sup>th</sup>, 13<sup>th</sup>, 13<sup>th</sup>)

##### ALC Rate (All Inpatient Services)

- The annual ALC rate for all inpatient beds increased from 13.9% in FY 13/14 to 15.4% in FY 17/18.
- In FY 17/18, the HNHB LHIN was steady with the provincial rate of 15.4%.

#### Acute I/P Services



- HNHB LHIN increased over the past 5 fiscal years (14.9% FY 13/14; 17.6% FY 17/18) and is now 1.4% above the provincial value.

#### Post-Acute I/P Services

- HNHB LHIN decreased over the past 5 fiscal years (12.2% FY 13/14; 11.9% FY 17/18). HNHB LHIN is below the provincial post-acute ALC rate (8<sup>th</sup> in ON).
  - CCC Inpatient Services – 8<sup>th</sup> across LHINs for FY 17/18. Rate increased from 17.9% in FY 13/14 to 18.6% in FY 17/18
  - Rehab Inpatient Services – 9<sup>th</sup> across LHINs for FY 17/18. Rate decreased from 7.2% in FY 13/14 to 5.5% in FY 17/18
  - Mental Health Inpatient Services – 11<sup>th</sup> across LHINs for FY 17/18. Rate decreased from 5.3% in FY 13/14 to 5.1% in FY 17/18

#### LHIN/Facility/Site – Annual ALC Rate

Province/LHIN/Facility/Site			Annual ALC Rate					% Change FY 13/14 to FY 17/18
			FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	
<b>Provincial</b>			<b>13.8%</b>	<b>13.7%</b>	<b>13.9%</b>	<b>14.8%</b>	<b>15.4%</b>	
<b>LHIN</b>	<b>4</b>	<b>Haldimand</b>	13.9%	15.8%	13.4%	14.1%	15.4%	1.5%
<b>Facility</b>	648	HALDIMAND WAR MEMORIAL HOSPITAL	20.0%	15.7%	26.3%	21.5%	38.5%	18.5%
<b>Facility</b>	664	WEST LINCOLN MEMORIAL HOSPITAL	12.3%	NR	NR	NR	NR	
<b>Facility</b>	674	ST JOSEPH'S COMMUNITY HEALTH CENTRE HAMILTON	11.4%	12.9%	12.4%	13.3%	13.9%	2.5%
<b>Site</b>	4054	ST JOSEPH'S –HAMILTON	11.4%	12.9%	12.4%	13.3%	13.9%	2.5%
<b>Site</b>	4525	ST. JOSEPH'S COMMUNITY HEALTH CENTRE HAMILTON-KING	N/A	N/A	N/A	N/A	N/A	
<b>Facility</b>	718	JOSEPH BRANT MEMORIAL HOSPITAL	18.7%	22.2%	18.1%	10.1%	11.0%	(-7.6%)
<b>Facility</b>	790	RELIG HOSP OF ST.JOSEPH OF HOTEL DIEU	7.2%	9.1%	6.9%	7.5%	7.5%	0.3%
<b>Facility</b>	804	NORFOLK GENERAL HOSPITAL	18.2%	20.1%	16.9%	18.0%	18.1%	(-0.1%)
<b>Facility</b>	942	HAMILTON HEALTH SCIENCES	12.7%	13.8%	12.3%	13.6%	15.1%	2.4%
<b>Site</b>	4231	HAMILTON – GENERAL	14.5%	15.8%	14.2%	16.1%	17.2%	2.8%
<b>Site</b>	4285	HAMILTON – HENDERSON	15.3%	18.4%	17.4%	16.3%	17.1%	1.8%
<b>Site</b>	4286	HAMILTON – MCMASTER	0.0%	0.0%	0.0%	0.0%	0.8%	0.8%
<b>Site</b>	4708	HAMILTON HEALTH SCIENCES - ST. PETER'S	14.9%	12.9%	11.0%	14.9%	17.0%	2.1%
<b>Site</b>	4790	HAMILTON - WEST LINCOLN MEMORIAL HOSPITAL SITE	N/A	20.6%	13.7%	18.1%	16.5%	(-4.1%)
<b>Facility</b>	962	NIAGARA HEALTH SYSTEM	16.4%	19.5%	14.5%	17.1%	20.1%	3.7%
<b>Site</b>	3978	NIAGARA HEALTH -WELLAND COUNTY	18.6%	27.7%	20.1%	26.2%	31.6%	13.0%
<b>Site</b>	3982	NIAGARA -GREATER NIAGARA	17.9%	23.6%	16.2%	20.8%	24.6%	6.7%
<b>Site</b>	4045	NIAGARA -ST CATHARINES GEN	9.6%	11.6%	11.3%	13.2%	13.4%	3.8%
<b>Site</b>	4183	NIAGARA HEALTH -PORT COLBORNE SITE	41.6%	36.2%	19.9%	19.7%	21.5%	(-20.2%)
<b>Site</b>	4216	NIAGARA HEALTH SYSTEM -NIAG-ON-THE-LAKE	36.5%	35.6%	N/A	N/A	N/A	
<b>Site</b>	4232	NIAGARA -FORT ERIE DOUGLAS	21.3%	20.5%	14.9%	9.6%	29.0%	7.8%
<b>Facility</b>	970	BRANT COMMUNITY HEALTHCARE SYSTEM	16.8%	18.6%	14.1%	15.0%	11.4%	(-5.4%)

*\*If all 5 years are not available, then available years used to calculate % change*

- In FY 17/18, Haldimand War Memorial Hospital had the highest ALC Rate across the HNHB LHIN at the facility level, with Niagara Health – Welland County having the highest site level rate.
- Haldimand War Memorial Hospital had the greatest increase in ALC Rate since FY 13/14 (+18.5%)
- Niagara Health – Port Colborne Site had the greatest decrease in ALC Rate since FY 13/14 (-20.2%).

## Long-Term Care

### Long-Term Care Bed Supply

- 86 LTC homes are licensed and approved to operate in HNHB LHIN
- As of February 2018, there were a total of 10,582 Long-Term Care beds in operation in HNHB LHIN
  - With the exception of 206 beds designated as Short-stay, Respite or Convalescent care beds, almost all of the LTC beds are designated Long-Stay Beds or Interim beds.

### Long-Term Care Waitlist & Placements

- Of the 2,754 patients placed in HNHB LHIN Long-Term Care Homes in FY 2017/18, approximately 75% were from the community while only 18% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province)
- Of the 2,716 residents of HNHB LHIN placed in Ontario Long-Term Care Homes in FY 2017/18, approximately 76% were from the community while only 17% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province)
- The median time to placement in a HNHB LHIN long-term care home, as of March 2018, was 105 days.
  - Half of community patients waited less than 112 days for a placement in a HNHB LHIN LTC home while half of hospital patients waited less than 82 days for placement in a HNHB LHIN LTC Home.
- The median time to placement for a HNHB LHIN resident to be placed in a long-term care home, as of March 2018, was 105 days.
  - Half of community patients from HNHB LHIN waited less than 112 days for a placement in an Ontario LTC home while half of hospital patients waited less than 84 days for placement.
- As of March 2018, there were 2,841 patients on the waitlist waiting for placement in a Long-Term Care home in HNHB LHIN (not including patients awaiting transfer from one LTC home to another).
- As of March 2018, there were 2,722 residents of HNHB LHIN on the waitlist waiting for placement in an Ontario Long-Term Care home (not including patients awaiting transfer from one LTC home to another).

### Long-Stay Demand

- As of March 2018, there were 10,153 long-stay residents occupying LTC Homes within HNHB LHIN.
- When adjusted for the size of the older population, HNHB LHIN has approximately 85 Long-Stay beds per 1,000 people aged 75+.
- The gap between the demand and supply of Long-Term Care Homes in HNHB LHIN reflects a shortage of approximately 2,522 Long-Stay beds
  - The largest gap is in the **Hamilton** sub-region (814 beds) and the smallest gap is in **Brant** (166 beds).

### Selected Characteristics of Long-Term Care Home Residents

- In HNHB LHIN, 84% of Residents were over the age of 75 with 57% being over the age of 85
- In 2016/17, the mean age of residents of LTC Homes in HNHB LHIN was 84
- The mean length of stay for residents of LTC Homes in HNHB LHIN was 978 days (about 2.7 years) with half of residents remaining in LTC homes for less than 642 days.
- Nearly 84% of residents need extensive help with daily activities such as getting out of bed, eating, or toileting; 27% are highly or entirely dependent on staff
- 81% have some form of cognitive impairment; 25% are severely impaired
- 49% exhibit some level of aggressive behaviour related to their cognitive impairment or mental health condition with 6% exhibiting very severe aggressive behavior.
- 64% of active LTC Residents in HNHB LHIN LTC Homes have been identified as having some form of dementia.

### Long-term care home supply, waitlists and placements, and resident characteristics, by LHIN sub-region

	Hamilton Niagara Haldimand Brant		0401		0402		0403		0404		0405		0406	
			Hamilton		Burlington		Niagara North West		Niagara		Brant		Haldimand Norfolk	
Long-term care bed supply in the sub-region (February 2018)	#	Rate per 1,000 populatio n age 75+	#	Rate per 1,000 populatio n age 75+	#	Rate per 1,000 populatio n age 75+	#	Rate per 1,000 populatio n age 75+	#	Rate per 1,000 populatio n age 75+	#	Rate per 1,000 populatio n age 75+	#	Rate per 1,000 populatio n age 75+
Long-term care homes	86		27		10		5		27		8		10	
Long-stay beds	10,376	84.7	3,816	88.9	1,261	72.6	590	112.7	3,032	79.8	886	83.6	845	86.9
Short-stay, respite & convalescent care beds	206	1.7	96	2.2	20	1.2	3	0.6	78	2.1	5	0.5	5	0.5
Total beds in operation	10,582	86.3	3,912	91.1	1,281	73.7	593	113.2	3,110	81.9	891	84.0	850	87.4

*\*The denominator for the rate calculation refers to the number of sub-region residents age 75+; however the LTC homes/beds may serve individuals from other sub-regions. Therefore, rates should be interpreted with caution.*

	Hamilton Niagara Haldimand Brant		0401		0402		0403		0404		0405		0406	
			Hamilton		Burlington		Niagara North West		Niagara		Brant		Haldimand Norfolk	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>By sub-region of long-term care home (patients awaiting placement in a home within the sub-region)</b>														
Long-stay waitlist without transfer patients*	2,841	23.2	880	20.5	429	24.7	223	42.6	889	23.4	175	16.5	249	25.6
<b>Placements**</b>														
From community	2,077	75.4%	694	73.4%	280	80.0%	144	83.2%	599	78.0%	222	79.0%	146	57.3%
From hospital	485	17.6%	199	21.1%	49	14.0%	24	13.9%	92	12.0%	45	16.0%	82	32.2%
Total	2,754		945		350		173		768		281		255	

	Hamilton Niagara Haldimand Brant		0401		0402		0403		0404		0405		0406	
			Hamilton		Burlington		Niagara North West		Niagara		Brant		Haldimand Norfolk	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Median time to placement (days)														
From community	112		103.0		98.0		208.0		118.0		104.5		100.5	
From hospital	82		69.0		116.0		208.5		97.0		58.0		99.0	
Total	105		94.0		108.5		207.0		108.0		94.0		99.0	
By sub-region of <u>patient</u> (patients who reside within the sub-region and are awaiting placement in any home)														
Long-stay waitlist without transfer patients*	2,722	22.2	890	20.7	310	17.8	175	33.4	916	24.1	191	18.0	240	24.7
Placements**														
From community	2,073	76.3%	721	75.3%	297	83.9%	102	79.7%	622	78.0%	201	82.0%	133	55.2%
From hospital	462	17.0%	189	19.7%	41	11.6%	20	15.6%	100	12.5%	29	11.8%	86	35.7%
Total	2,716		958		354		128		797		245		241	
Median time to placement (days)														
From community	112		96.0		96.0		216.0		119.0		111.0		128.0	
From hospital	84		69.0		84.0		249.0		103.5		70.0		77.0	
Total	105		92.0		93.0		216.0		112.0		111.0		95.0	

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents

Placements from other locations (correctional facilities, homeless, out-of-province) are not shown but are included in the total placement values.

	Hamilton Niagara Haldimand Brant		0401		0402		0403		0404		0405		0406	
			Hamilton		Burlington		Niagara North West		Niagara		Brant		Haldimand Norfolk	
Long-stay demand (February / March 2018) for LTC homes in the sub- region	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-stay residents	10,153	82.8	3,750	87.3	1,248	71.8	579	110.6	2,928	77.1	877	82.7	824	84.7
Long-stay waitlist without transfer patients	2,841	23.2	880	20.5	429	24.7	223	42.6	889	23.4	175	16.5	249	25.6
Total demand	12,994	106.0	4,630	107.8	1,677	96.5	802	153.1	3,817	100.5	1,052	99.2	1,073	110.3
Total long-stay supply	10,376	85	3,816	88.9	1,261	72.6	590	112.7	3,032	79.8	886	83.6	845	86.9
Difference between supply and demand	2,522	21	814	19.0	416	23.9	212	40.5	785	20.7	166	15.7	228	23.4

	Hamilton Niagara Haldimand Brant		0401		0402		0403		0404		0405		0406	
			Hamilton		Burlington		Niagara North West		Niagara		Brant		Haldimand Norfolk	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Demography, volume and length of stay (LOS)</b>														
Active LTC Residents*	9,304	75.9	3,359	78.2	1,180	67.9	540	103.1	2,735	72.0	799	75.4	691	71.0
Number of admissions*	3,888	31.7	1,300	30.3	431	24.8	180	34.4	1,249	32.9	418	39.4	310	31.9
<b>By age group**</b>														
Residents age <65	563	6.1%	240	7.1%	59	5.0%	19	3.5%	139	5.1%	70	8.8%	36	5.2%
Residents age 65-74	961	10.3%	376	11.2%	107	9.1%	33	6.1%	295	10.8%	93	11.6%	57	8.2%

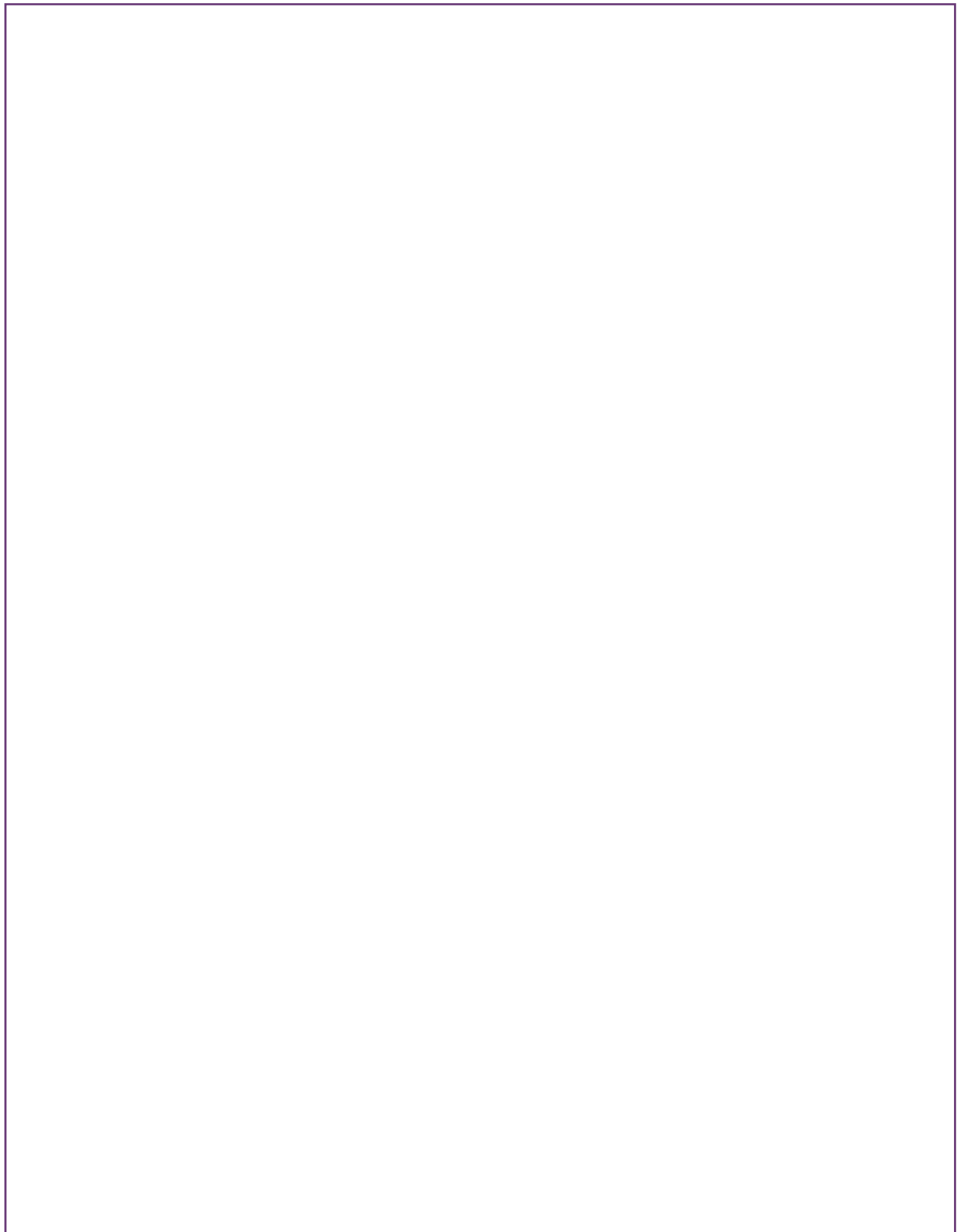
	Hamilton Niagara Haldimand Brant		0401		0402		0403		0404		0405		0406	
			Hamilton		Burlington		Niagara North West		Niagara		Brant		Haldimand Norfolk	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Residents age 75-84	2,498	26.8%	877	26.1%	306	25.9%	131	24.3%	743	27.2%	232	29.0%	209	30.2%
Residents age 85+	5,282	56.8%	1,866	55.6%	708	60.0%	357	66.1%	1,558	57.0%	404	50.6%	389	56.3%
mean age of residents	84		83		85		86		84		82		84	
mean age of residents at admission	83		83		85		85		84		82		84	
<b>Length of stay</b>														
mean LOS (days)	978		1,068		955		1,209		906		864		940	
Median LOS (days)	642		755		692		945		546		471		582	
<b>Residents by level of ADL assistance required**</b>														
None or limited assistance required	1,504	16.2%	548	16.3%	139	11.8%	106	19.6%	450	16.5%	127	15.9%	134	19.4%
Extensive assistance required	5,307	57.0%	1,844	54.9%	685	58.1%	295	54.6%	1,588	58.1%	493	61.7%	402	58.2%
Dependent	2,493	26.8%	967	28.8%	356	30.2%	139	25.7%	697	25.5%	179	22.4%	155	22.4%
<b>Residents by level of aggressive behaviour**</b>														
No signs of aggressive behaviour	4,708	50.6%	1,793	53.4%	569	48.2%	248	45.9%	1,302	47.6%	448	56.1%	348	50.4%
Some signs of aggressive behaviour	2,422	26.0%	838	24.9%	294	24.9%	131	24.3%	758	27.7%	200	25.0%	201	29.1%
Moderate to severe aggressive behaviour	1,575	16.9%	522	15.5%	218	18.5%	109	20.2%	494	18.1%	112	14.0%	120	17.4%
Very severe aggressive behaviour	597	6.4%	204	6.1%	99	8.4%	52	9.6%	181	6.6%	39	4.9%	22	3.2%

	Hamilton Niagara Haldimand Brant		0401		0402		0403		0404		0405		0406	
			Hamilton		Burlington		Niagara North West		Niagara		Brant		Haldimand Norfolk	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Cognitive impairment categories</b>														
**														
Relatively intact	1,792	19.3%	657	19.6%	173	14.7%	140	25.9%	524	19.2%	152	19.0%	146	21.1%
Mild impairment	5,154	55.4%	1,827	54.4%	678	57.5%	266	49.3%	1,537	56.2%	455	56.9%	391	56.6%
Severe impairment	2,358	25.3%	875	26.0%	329	27.9%	134	24.8%	674	24.6%	192	24.0%	154	22.3%
<b>RUG categories **</b>														
1 Extensive Services	347	3.7%	118	3.5%	34	2.9%	13	2.4%	137	5.0%	30	3.8%	15	2.2%
2 Special Rehabilitation	327	3.5%	88	2.6%	39	3.3%	33	6.1%	130	4.8%	19	2.4%	18	2.6%
3 Special Care	1,086	11.7%	391	11.6%	204	17.3%	61	11.3%	291	10.6%	69	8.6%	70	10.1%
4 Clinically Complex	2,133	22.9%	736	21.9%	368	31.2%	108	20.0%	537	19.6%	228	28.5%	156	22.6%
5 Impaired Cognition	1,119	12.0%	457	13.6%	93	7.9%	52	9.6%	323	11.8%	96	12.0%	98	14.2%
6 Behavioural Problems	176	1.9%	58	1.7%	21	1.8%	7	1.3%	67	2.4%	11	1.4%	12	1.7%
7 Reduced Physical Functions	4,116	44.2%	1,511	45.0%	421	35.7%	266	49.3%	1,250	45.7%	346	43.3%	322	46.6%
<b>Residents with Dementia**</b>	<b>5,961</b>	<b>64.1%</b>	<b>2,046</b>	<b>60.9%</b>	<b>835</b>	<b>70.8%</b>	<b>336</b>	<b>62.2%</b>	<b>1,726</b>	<b>63.1%</b>	<b>555</b>	<b>69.5%</b>	<b>463</b>	<b>67.0%</b>

\* Rate or % column shows the rate per 1,000 population age 75+

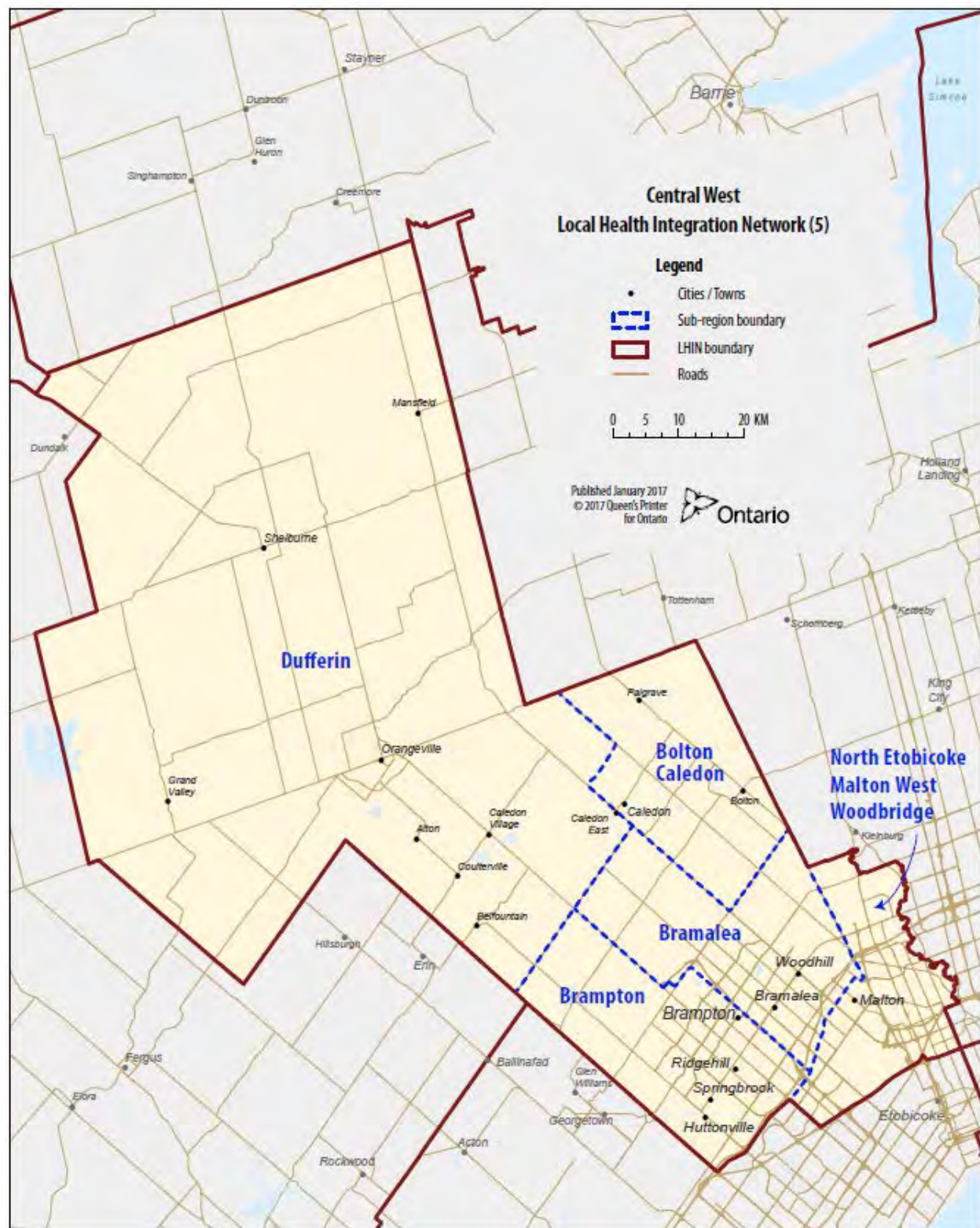
\*\* Rate or % column shows percentage of active LTC residents







## 5. Central West LHIN



## Contents

<b>5. Central West LHIN</b>	<b>1</b>
<b>Highlights</b>	<b>1</b>
Central West LHIN .....	1
Residents of Central West LHIN Sub-Regions .....	4
<b>Population Characteristics</b>	<b>10</b>
Population Estimates .....	10
2016 Census Profile .....	11
Births and Mortality .....	18
General Health, Risk Factors, and Prevention .....	23
Chronic Conditions .....	25
<b>Human Resources</b>	<b>37</b>
<b>Primary Care</b>	<b>40</b>
Primary Care Enrolment .....	40
Selected Measures from the Health Care Experience Survey .....	40
<b>Community Care</b>	<b>42</b>
<b>Mental Health</b>	<b>43</b>
Wait Time for Community Services .....	43
Mental Health and Substance Abuse Emergency Department Visits .....	43
Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility .....	44
<b>Surgery &amp; Diagnostic Imaging</b>	<b>46</b>
Day Surgery and Cardiac Catheterization Utilization .....	46
Surgical & Diagnostic Imaging Wait Times .....	47
<b>Oncology and Dialysis</b>	<b>52</b>
<b>Home Care</b>	<b>56</b>
<b>Palliative Care</b>	<b>59</b>
<b>Emergency Department</b>	<b>62</b>
Emergency Department Utilization .....	62
Emergency Department Performance .....	67
<b>Acute Care</b>	<b>69</b>
Acute Care Utilization by Residents of the Central West LHIN .....	69
Acute Care Utilization for Central West LHIN Facilities .....	70
Acute Care Inflow/Outflow .....	72
<b>Post-Acute Care</b>	<b>73</b>
Inpatient Rehabilitation Utilization .....	73
Complex Continuing Care Utilization .....	76
<b>Alternate Level of Care</b>	<b>77</b>
Closed ALC Cases .....	78
Open ALC Cases .....	78
Hospital Processes and Capacity .....	79
<b>Long-Term Care</b>	<b>81</b>

## Highlights

Comprehensive information about population demographics, health status, health outcomes, chronic conditions, human resources, primary care, health service utilization, and long-term care in the Central West LHIN can be found under the content headings of in the remainder of this document, beginning with the socio-demographic profile. This Highlights introduction is intended to provide a guide to areas in which either the Central West LHIN or one of its sub-regions is significantly different from the province as a whole. Sub-region comparisons within this section are always to the other 75<sup>1</sup> sub-regions across the province, and LHIN comparisons are always to the other 13 LHINs.

### Central West LHIN

#### Population Characteristics

- Out of all 14 LHINs, Central West LHIN had the **lowest** percentage of residents over 65 and over 75 years old.
- The Central West LHIN had the **lowest** percentage of residents aged 65+ living alone.
- The Central West LHIN had the **lowest** percentage of residents who report French as their first language.
- The Central West LHIN had the second highest percentage of immigrants and the second highest percentage of recent immigrants. The country of origin for the largest proportion of recent immigrants was India.
- The Central West LHIN had the **highest** percentage of visible minorities.
- The Central West LHIN had the **lowest** number of residents reporting Aboriginal identity, and the third lowest percentage.
- In 2016, Central West had the **highest** crude birth rate in the province.
- The fertility rate for Central West females of reproductive age was the 2<sup>nd</sup> highest rate in the province.
- Central West LHIN had the **lowest** volume of CSS\_Community Visits-Face to Face Visits per 1,000 population 75+.
- Central West had the **highest** volume of CSS\_Community Visits- Non Face to Face Visits per 1,000 population 75+.
- Central West LHIN had the **lowest** volume of CSS\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population 75+.
- Central West LHIN had the **lowest** volume of CSS\_Community Group Participants Patient Attendances per 1,000 population 75+.
- Mean HIG weight for Central West LHIN hospitals was the **lowest** value among all LHINs.
- The Central West LHIN had the **lowest** rate of active home care referrals.
- In 2017/18, the Central West LHIN had the **lowest** home care service visit rate.
- In 2017/18, the Central West LHIN had the **lowest** rate of home care service hours and **lowest** service hour rate for personal support.
- Central West emergency departments had the **largest** proportion of patients who arrived by ambulance (tied with **Toronto Central**).
- In FY 2016/17, Central West hospitals had the **lowest** ratio of ED visits triages at CTAS level IV and V.
- The Central West LHIN had a **significantly lower** percentage of people who died in hospital than the provincial value.

---

<sup>1</sup> Or however many sub-regions have reported data across the province.

- Central West had the **highest** percentage of patients with two or more acute inpatient admissions in the last 30 days of life, **significantly higher** than the province as a whole.
- Residents of the Central West LHIN had the **shortest** length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- Central West LHIN residents had the **lowest** HIG weight in 2016/17.
- Central West hospitals had the **shortest** total length of stay (acute days plus ALC days) in 2016/17.
- Central West hospitals had the **lowest** HIG weight in 2016/17.
- The Central West LHIN had the **highest** proportion of outflow (residents of the Central West LHIN admitted to acute inpatient beds in other LHINs).
- Hospitals in Central West had the **greatest** growth in active CCC cases between 2013/14 and 2016/17.
- Residents of Central West had the **lowest** CCC active case rate in 2016/17.

### Strengths

- The Central West LHIN had the **lowest** percentage of seniors living in poverty.
- The Central West LHIN had the **lowest** rate of alcohol consumption during pregnancy.
- Residents of the Central West LHIN had the **highest very good or excellent** self-perceived mental health in the province.
- The Central West LHIN had the 2<sup>nd</sup> lowest percentage of daily or occasional smokers.
- The Central West LHIN had the 2<sup>nd</sup> lowest percentage of heavy drinkers.
- Central West LHIN residents had the **lowest** mean total length of stay and 2<sup>nd</sup> lowest mean acute length of stay.
- In 2016, the “large for gestational age” rate was the **lowest** in the province.
- Central West LHIN had the **highest** life expectancy at age 65.
- **Highest** percent of residents who reported that they were able to see their provider the same day or next day when they were sick.
- Hospitals in the Central West LHIN had the **lowest** % ALC days, ALC rate, and rate of ALC designation within 1, 2, and 3 days of admission in the province.
- The Central West LHIN tied for the **shortest** ALC wait time for closed cases at the end of 2017/18.
- Central West LHIN residents had the 2<sup>nd</sup> lowest rate of emergency department utilization for opioid overdose in 2016/17.
- Central West LHIN hospitals had the **lowest** total and **lowest** mean length of stay for discharges from adult designated mental health beds.
- In 2017/18, emergency departments in the Central West LHIN had the **shortest** time to physician initial assessment.
- Central West emergency departments had the **shortest** time to disposition and the **shortest** length of stay for non-admitted low acuity patients.
- Emergency departments in the Central West LHIN had the **highest** percentage of non-admitted low acuity patients discharged within the target of 4 hours.

### Challenges/Opportunities

- The Central West LHIN had the **highest** percentage of households with insufficient bedrooms to accommodate the household.
- In 2016, the stillbirth rate in Central West was the 2<sup>nd</sup> highest rate in the province.
- The total Caesarean section rate was the **highest** in the province. Central West also had the **highest** repeat Caesarean sections rate in the province.
- In 2016, the pre-term birth rate was the **highest** in the province.
- In 2016, the “small for gestational age” rate was the **highest** rate in the province.
- Central West had the **highest** low birth weight rate in the province and the **highest** full-term low birth weight rate in the province.
- Central West LHIN had the **lowest** rate of exclusive breastfeeding in the province.
- Central West LHIN had the **highest** rate of potential years of life lost for perinatal conditions.
- Central West LHIN residents reported the 2<sup>nd</sup> lowest rate of very good or excellent health, **significantly lower** than the Ontario value.
- Residents of the Central West LHIN reported the second highest rate of days that were ‘*quite a bit*’ or ‘*extremely*’ stressful.
- Residents of the Central West LHIN reported the **lowest** rate in the province of receiving a flu shot in the year preceding the survey, **significantly lower** than the Ontario rate.
- The Central West LHIN had the **highest** percentage of residents who were overweight.
- The Central West LHIN had the 2<sup>nd</sup> highest percentage of residents who were physically inactive, **significantly higher** than the Ontario percentage.
- The Central West LHIN had the highest prevalence of diabetes and the 2<sup>nd</sup> highest prevalence of asthma compared to other LHINs.
- The Central West LHIN had the 2<sup>nd</sup> highest percentage of residents who went to a walk in clinic for something that could have been treated by a primary care provider if they were available.
- Residents of the Central West LHIN had a **significantly higher** rate of unplanned ED visits in the last 30 days of life than the province as a whole.
- Patients in Central West hospitals spent the **longest** time waiting in the emergency department to be admitted to an inpatient bed.

## Residents of Central West LHIN Sub-Regions

### NORTH ETOBICOKE MALTON WEST WOODBRIDGE SUB-REGION HIGHLIGHTS

#### Population Characteristics

- 8<sup>th</sup> lowest percentage of residents who report English as their mother tongue.
- 7<sup>th</sup> highest percentage of residents who report no knowledge of English or French.
- 7<sup>th</sup> highest percentage residents who were immigrants.
- Compared to all 76 sub-regions, **North Etobicoke Malton West Woodbridge** had the 7<sup>th</sup> highest proportion of immigrants and 3<sup>rd</sup> highest proportion of recent immigrants. The country of origin for the largest proportion of recent immigrants was India.
- 7<sup>th</sup> highest percentage of residents who were first generation Canadian.
- 7<sup>th</sup> highest percentage of residents who were visible minorities.
- 6<sup>th</sup> lowest percentage of residents reporting Aboriginal identity.
- 6<sup>th</sup> highest percent of residents with one or more unplanned ED visits in the last 30 days of life.

#### Strengths

- 2<sup>nd</sup> highest percentage of residents who reported that they were able to see their provider the same day or next day when they were sick.

#### Challenges/Opportunities

- 4<sup>th</sup> highest percentage of households with an insufficient number of bedrooms to accommodate household size.
- 6<sup>th</sup> highest percentage of children under 6 living in low-income households.
- 8<sup>th</sup> highest percentage of children under 18 living in low-income households.
- 6<sup>th</sup> highest low birth weight rate in the province.
- **Highest** “small for gestational age” rate among all Ontario sub-regions.
- A **significantly lower** proportion of residents of **North Etobicoke Malton West Woodbridge** sub-region indicated that they had *very good* or *excellent* health than Ontarians overall.
- **Significantly higher** rates of physical inactivity than Ontario.
- **Highest** hospitalization rate for asthma in the province.



## DUFFERIN SUB-REGION HIGHLIGHTS

### Population Characteristics

- 5<sup>th</sup> highest percentage of residents age 25-64 with only high school completion.
- 3<sup>rd</sup> highest of participants in the labour force with a commuting duration of 60 minutes and over.
- 7<sup>th</sup> lowest fertility rate for women age 15 to 49 in the province.
- Among the 8 sub-regions with the lowest service hour rates per 1,000 population for personal support.
- 6<sup>th</sup> highest percentage of patients with two or more acute inpatient admissions in the last 30 days of life.
- Among the shortest acute length of stay in acute hospital beds in 2016/17.
- Among the shortest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- 3<sup>rd</sup> lowest rehabilitation admission rate in FY16/17.

### Strengths

- 8<sup>th</sup> lowest percentage population living below the low-income measure.
- 8<sup>th</sup> lowest percentage of children under 18 living in low-income households.
- 5<sup>th</sup> highest percentage of residents age 15+ participating in the labour force.
- 5<sup>th</sup> lowest low birth weight rate in the province.
- **Dufferin** residents indicated **significantly higher** rates of self-perceived health than Ontarians overall.
- **Significantly higher** rates of attachment to a family doctor than Ontarians as a whole.
- Among the 8 sub-regions with the lowest hospitalization rates for asthma.
- 3<sup>rd</sup> highest percentage of residents who reported satisfaction with health care in their community.
- 3<sup>rd</sup> lowest inpatient rehabilitation admission rate in the province.
- At the end of 2017/18, there were no residents of **Dufferin** designated ALC in any Ontario hospital.

### Challenges/Opportunities

- **Dufferin** was not significantly different from the rest of Ontario in any areas of challenge or opportunity.

## BOLTON-CALEDON SUB-REGION HIGHLIGHTS

### Population Characteristics

- 6<sup>th</sup> lowest total population.
- 6<sup>th</sup> lowest percentage of people age 65+ living alone.
- 3<sup>rd</sup> highest percentage of residents age 15+ participating in the labour force.
- 4<sup>th</sup> lowest fertility rate in the province.
- In 2017/18, among the 8 lowest for total home service visit rates per 1,000.
- In the top 8 highest sub-regions for nursing visit rates in 2017/18.
- Among the lowest 8 sub-regions for the lowest personal support service hour rates.
- 7<sup>th</sup> highest rate of palliative home visits in the last 90 days of life in 2016/17.
- Among the lowest acute separation rates from acute hospital beds in 2016/17.
- Among the lowest rates of acute care days per 1,000 residents in 2016/17.
- Among the shortest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- 8<sup>th</sup> lowest CCC active case rate.

### Strengths

- 2<sup>nd</sup> lowest percentage population living below the low-income measure.
- 2<sup>nd</sup> lowest percentage of children under 6 living in low-income households.
- 2<sup>nd</sup> lowest percentage of children under 18 living in low-income households.
- 4<sup>th</sup> lowest percentage of seniors (65+) living in low-income households.
- Among the 8 sub-regions with the lowest hospitalization rates for diabetes.
- Among the 8 sub-regions with the lowest mean cost per healthcare user.
- Among the 8 sub-regions with the lowest mean cost per complex patient.
- Among the 8 sub-regions with the lowest percentage of high cost healthcare users.
- Among the 8 sub-regions with the lowest mean cost per high cost healthcare user.
- 4<sup>th</sup> lowest percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days.
- 4<sup>th</sup> lowest percentage of residents who found it difficult to access care after-hours without going to an emergency department
- Ranked in the lowest 8 among Ontario sub-regions for the rate of acute separations, with a rate well below Ontario.
- Among the lowest 8 Ontario sub-regions for the rate of acute days– with values well below Ontario.
- 7<sup>th</sup> lowest all-cause mortality rate in the province.
- **Bolton-Caledon** residents had the 5<sup>th</sup> lowest ED visit rates per 1,000 population for MH/SA conditions (main problem diagnosis).
- Residents of **Bolton-Caledon** had the 2<sup>nd</sup> lowest mental health active case rate.
- At the end of 2017/18, there were no residents of **Bolton-Caledon** designated ALC in any Ontario hospital.

### Challenges/Opportunities

- Overweight or obesity rates were **significantly higher** in **Bolton-Caledon** than Ontario.

## BRAMALEA SUB-REGION HIGHLIGHTS

### Population Characteristics

- According to the census, **Bramalea** had the 4<sup>th</sup> highest increase in population between 2011 and 2016.
- 6<sup>th</sup> lowest percentage of population aged 65+.
- 5<sup>th</sup> lowest percentage of population aged 75+.
- **Lowest** percentage of residents aged 65+ living alone of all 76 Ontario sub-regions.
- 6<sup>th</sup> lowest percentage of residents who report English as their mother tongue.
- 5<sup>th</sup> lowest percentage of residents who report French as their mother tongue.
- 4<sup>th</sup> highest percentage of residents who report no knowledge of English or French.
- Compared to all 76 sub-regions, **Bramalea** had the 8<sup>th</sup> highest proportion of immigrants and 7<sup>th</sup> highest proportion of recent immigrants. The country of origin for the largest proportion of recent immigrants was India.
- 2<sup>nd</sup> highest percentage of residents who were visible minorities.
- 8<sup>th</sup> lowest percentage of residents reporting Aboriginal identity.
- 5<sup>th</sup> highest crude birth rate in the province.
- Among the 8 lowest sub-regions for total home service visit rate in 2017/18.
- Among the 8 highest sub-regions for nursing visit rates in 2017/18.
- In 2017/18, **Bramalea** was among the 8 sub-regions with the lowest service hour rates for personal support.
- Among the lowest rates of acute care days in 2016/17.
- Among the shortest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- 2<sup>nd</sup> lowest CCC active case rate.

### Strengths

- 8<sup>th</sup> lowest percentage of seniors (65+) living in low-income households.
- **Bramalea** tied with **North York Central** for the 8<sup>th</sup> lowest “large for gestational age” rate in the province.
- Compared to Ontario, self-perceived *very good* or *excellent* mental health was significantly more prevalent in the **Bramalea** sub-region.
- **Significantly higher** rates of attachment to a family doctor than Ontarians as a whole.
- **Significantly lower** prevalence of arthritis than Ontario’s. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- **Significantly lower** prevalence of heart disease than Ontario’s. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- Among the 8 sub-regions with the lowest mean cost per healthcare user.
- **Lowest** mean cost per complex patient in the province.
- Among the 8 sub-regions with the lowest percentage of high cost healthcare users.
- Among the lowest 8 Ontario sub-regions for the rate of acute days– with values well below Ontario.
- 2<sup>nd</sup> lowest all-cause mortality rate in the province.
- **Highest** percentage of residents who reported that they were able to see their provider the same day or next day when they were sick.
- In 2017/18, residents of **Bramalea** tied for the 2<sup>nd</sup> shortest wait before being discharged from hospital with an ALC designation (closed cases).

### Challenges/Opportunities

- Bramalea tied with Brampton for the 3<sup>rd</sup> highest pre-term birth rate in the province.
- 3<sup>rd</sup> highest low birth weight rate in the province.
- 6<sup>th</sup> highest “small for gestational age” rate in the province.
- **Significantly higher** rates of physical inactivity than Ontario.

## BRAMPTON SUB-REGION HIGHLIGHTS

### Population Characteristics

- According to the census, **Brampton** had the 5<sup>th</sup> highest increase in population between 2011 and 2016.
- 5<sup>th</sup> lowest percentage of population aged 65+.
- 6<sup>th</sup> lowest percentage of population aged 75+.
- 4<sup>th</sup> lowest percentage of people age 65+ living alone.
- 5<sup>th</sup> highest percentage of residents who were visible minorities.
- 4<sup>th</sup> highest crude birth rate in the province.
- 5<sup>th</sup> lowest “large for gestational age” rate in the province.
- 4<sup>th</sup> highest “small for gestational age” rate in the province.
- Among the lowest rates of acute care days in 2016/17.
- Among the shortest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- 3<sup>rd</sup> lowest CCC active case rate.

### Strengths

- 8<sup>th</sup> lowest percentage of dwellings in need of major repairs.
- **Significantly higher** rates of attachment to a family doctor than Ontarians as a whole.
- **Significantly lower** prevalence rate of arthritis than Ontario.
- **Significantly lower** prevalence rate of asthma than Ontario.
- **Significantly lower** prevalence rate of heart disease than Ontario. *Note: The reported rate had high sampling variability, the rate must be used with caution*
- Among the 8 sub-regions with the lowest mean cost per healthcare user.
- Among the 8 sub-regions with the lowest mean cost per complex patient.
- Among the 8 sub-regions with the lowest percentage of high cost healthcare users.
- Among the lowest Ontario sub-regions for the rate of acute days– with values well below Ontario.
- 5<sup>th</sup> lowest all-cause mortality rate in the province.
- In 2017/18, residents of **Brampton** tied for the 3<sup>rd</sup> shortest wait before being discharged from hospital with an ALC designation (closed cases).
- At the end of 2017/18, residents of **Brampton** had had the 3<sup>rd</sup> shortest wait to date for discharge from an ALC designation in hospital (open cases).

### Challenges/Opportunities

- 3<sup>rd</sup> highest stillbirth rate in the province.
- **Brampton** tied with **Bramalea** for the 3<sup>rd</sup> highest pre-term birth rate in the province.
- **Highest** low birth weight rate in the province.
- **Significantly higher** rates of physical inactivity than Ontario.
- 4<sup>th</sup> highest percentage of residents who went to a walk in clinic for something that could have been treated by provider if they were available.
- Among the 8 sub-regions for hospitalization rates for asthma.

## Population Characteristics

### Population Estimates<sup>2</sup>

- As of 2016, the population of the Central West LHIN is estimated to be 935,164, a 7.7% increase over 2011.
  - The populations 65 and over and 75 and over represent 12.6% and 5.0% of the total population respectively.
- The population of the Central West LHIN is projected to increase by 10.6% by 2021 and by 20.0% by 2026.

### Population Estimates from 2016 Census and Ministry of Finance

	Ontario	Central West	Comments†
2011 Census, total population	12,851,821	841,225	
2016 Census, total population	13,448,494	922,240	
Population growth between 2011 and 2016 (based on Census)	4.6%	9.6%	<i>Highest</i>
Estimated population, 2011	13,263,544	868,350	
<b>Estimated population, 2016</b>	<b>13,982,984</b>	<b>935,164</b>	
% population age 65+	16.38%		<b><i>Lowest</i></b>
% population age 75+	7.17%		<b><i>Lowest</i></b>
<b>% population change estimated 2011-2016</b>	<b>5.4%</b>	<b>7.7%</b>	<i>3<sup>rd</sup> highest</i>
Projected population, 2021	14,980,422	1,034,251	
Projected population, 2026	15,822,463	1,122,080	
% changes (based on changes from the 2016 estimates)			
% population change forecasted 2016-2021	7.1%	10.6%	
% population change forecasted 2016-2026	13.2%	20.0%	<i>2<sup>nd</sup> largest</i>

Sub-Region Name	Total population	Age 65plus	% 65+	Age 75plus	% 75+
<b>North Etobicoke Malton West Woodbridge</b>	211,828	31,202	14.73%	14,318	6.76%
<b>Dufferin</b>	78,532	11,350	14.45%	4,419	5.63%
<b>Bolton-Caledon</b>	42,329	5,950	14.06%	2,181	5.15%
<b>Bramalea</b>	271,843	30,249	11.13%	10,252	3.77%
<b>Brampton</b>	330,632	36,122	10.93%	13,937	4.22%

<sup>2</sup> Please see note in Ontario chapter on Census versus Ministry of Finance estimates.

### Census Demographics

- 19.4% of the population was in the age group 0-14 and 67.9% was in the age group 15-64.
- The dependency ratio in Central West at 64.4 was lower than the province (64.5).
- The largest proportion of Central West's population (87.0%) lived in large urban communities.
- 6.9% of Central West's population lived in medium/small population centre communities.
- 4.5% of Central West's population lived in rural or small communities adjacent to urban areas communities.
- The smallest proportion of Central West's population (1.6%) lived in rural and small town communities.
- Central West's land mass measures 2,591 square kilometres making it the 3<sup>rd</sup> smallest LHIN in the province.
- Central West's population density was 355.9 persons per square kilometre making it the 4<sup>th</sup> most densely populated LHIN in the province.

### Household

- In 2016, 187,505 families with children were living within the boundaries of the Central West LHIN. 24.8% of those families were lone parent.
  - By sub-region, **North Etobicoke Malton West Woodbridge** had the highest rate of lone-parent families (32.7%) and **Bolton-Caledon** had the lowest (18.3%).
  - **North Etobicoke Malton West Woodbridge** had the highest rate of one person households (18.9%) and **Bramalea** had the lowest (10.5%)
  - **Bramalea** had the highest rate of 5 or more person households (28.7%) and **Dufferin** had the lowest (11.9%).
- In 2016, 112,375 households contained one or more family members aged 65 years and over. 13.8% of those individuals were living alone.
  - By sub-region, **Dufferin** had the highest rate of seniors living alone (19.3%) and **Bramalea** had the lowest (8.9%).
- The total number of owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio was 274,890. 31.9% of those households spent 30% or more of their income on rent or payments.
  - By sub-region, **Bramalea** had the highest rate (34.1%) and **Bolton-Caledon** the lowest (21.3%).
- The total number of private households was 276,285. 76.8% of those were owner occupied and 23.2% were rented.
  - By sub-region and owner occupation rate, **Bolton-Caledon** had the highest rate (91.0%) with **North Etobicoke Malton West Woodbridge** having the lowest (62.1%).
- 4.5% of the private households in the Central West were in need of major repair, the 2<sup>nd</sup> lowest percentage in the province.
  - By sub-region and housing in need of repair rate, **North Etobicoke Malton West Woodbridge** had the highest rate (6.9%) and **Brampton** had the lowest (3.5%).
- 10.9% of the private households in the Central West LHIN had an insufficient number of bedrooms to accommodate the household makeup. This was the **highest** percentage in the province.
  - By sub-region and housing suitability, **North Etobicoke Malton West Woodbridge** had the highest rate of unsuitable housing (17.3%) and **Dufferin** had the lowest (3.1%).

## Language

- In 2016, 56.6% of the population reported English and 1.1% reported French as their mother tongue in Central West LHIN, the lowest in the province.
  - By sub-region, **Dufferin** had the highest proportion (89.0%) and **Bramalea** had the lowest proportion of residents who identified English as their mother tongue (49.4%).
  - By sub-region, **Dufferin** had the highest proportion (1.4%) and **Bramalea** had the lowest proportion of residents who identified French as their mother tongue (0.9%).
- In 2016, 1.5% of Central West LHIN residents were Francophone under the 2009 new Inclusive Definition of Francophone, the 2<sup>nd</sup> lowest proportion in the province.
  - By sub-region, **Brampton** the highest proportion of Francophone residents (1.7%) and **Bolton-Caledon** had the lowest (1.2%).
- 4.3% of the LHIN's population reported no knowledge of either official language.
  - By sub-region, **Bramalea** reported the highest proportion of residents with no knowledge of English or French (5.7%) and **Dufferin** had the lowest (0.4%).
- The majority of the LHIN's population (62.7%) reported English as their first home language, followed by English and a non-official language (11.3%), Punjabi/Panjabi (10.4%), Urdu (1.8%) and Gujarati (1.7%).

## Income

- In the Central West LHIN, 12.4% of the population live on low income, based on the after-tax low income measure (LIM-AT). As a whole, the Central West LHIN had one of the lowest proportions with low income (16.4%) among the 14 LHINs.
  - The proportion of residents living below the low income measure varied by sub-region, from 5.4% in the **Bolton-Caledon** sub-region to 19.0% in the **North Etobicoke Malton West Woodbridge** sub-region.
  - The proportion of households in the lowest income quintile ranged across sub-regions in the Central West LHIN, from 8.2% in the **Bolton-Caledon** sub-region to 26.7% in the **North Etobicoke Malton West Woodbridge** sub-region.
- In the Central West LHIN, 19.2% of children under the age of 6 live in low income households.
  - By sub-region, children living in low income households ranged from 6.1% in the **Bolton-Caledon** sub-region to 32.0% in the **North Etobicoke Malton West Woodbridge** sub-region.
- The proportion of households in the highest income quintile varied across sub-regions in the Central West LHIN, from 14.7% in the **Bramalea** sub-region to 32.4% in the **Bolton-Caledon** sub-region.

## Immigration

- In 2016, immigrants accounted for 48.3% of the Central West LHIN population, the second highest proportion in the province. From 1980 to 2016, 37.3% of immigrants were admitted as economic immigrants, 47.9% were sponsored by family and 13.8% were admitted as refugees. 6.3% of Central West LHIN residents were **recent immigrants**, having arrived in Canada between 2011 and 2016, the second highest proportion in the province. Of the recent immigrants, the highest proportion (49.3%) came from India, followed by Pakistan (6.7%) and the Philippines (5.8%).
  - Among the five Central West LHIN sub-regions, the percentage of immigrants ranged from 14.4% in **Dufferin** to 54.8% in **North Etobicoke Malton West Woodbridge**.
  - The percentage of recent immigrants ranged from 0.7% in **Dufferin** to 8.3% in **North Etobicoke Malton West Woodbridge**.
- In 2016, 50.2% of the Central West LHIN population were **first generation Canadians**, the second highest proportion in the province.



- Among the five Central West LHIN sub-regions, the percentage of first generation Canadians ranged from 15.1% in **Dufferin** to 57.5% in **North Etobicoke Malton West Woodbridge**.

### Visible Minorities

- In 2016, 63.3% of the Central West LHIN population was a visible minority, the **highest** proportion in the province.
  - Among the five Central West LHIN sub-regions, the percentage of visible minorities ranged from 8.4% in **Dufferin** to 77.9% in **Bramalea**.

### Indigenous (Aboriginal) Identity

- 0.8% of the Central West LHIN's residents identified as Aboriginal with 0.5% identifying as First Nations and 0.2% as Métis.
  - Among the five Central West LHIN sub-regions, the percentage of residents reporting Aboriginal identity ranged from 0.5% in **North Etobicoke Malton West Woodbridge** to 1.8% in **Dufferin**.

### Education

- In 2016, compared with other LHINs, Central West LHIN had 28.5% of residents of working age who had completed post-secondary education, ranking 6<sup>th</sup> across the province.
  - Across Central West sub-regions, the percentage of the population with less than high school ranged from 9.7% in **Bolton-Caledon** to 16.1% in **North Etobicoke Malton West Woodbridge**.
  - The percentage of the population with high school completion ranged from 26.6% in **Brampton** to 31.0% in **Dufferin**.
  - The percentage of the population with post-secondary education below bachelor's degree ranged from 27.6% in **Bramalea** to 39.0% in **Dufferin**.
  - The percentage of the population with bachelor's degree completion and beyond ranged from 20.02% in **Dufferin** to 30.5% in **Brampton**.

### Labour Force Participation

- Central West LHINs labour force participation rate among those aged 15+ was 67% in 2016, while the unemployment rate was 8.1%.
- Of those employed in 2016, 55% (the 3<sup>rd</sup> highest of all of the LHINs) of Central West LHIN residents had a commute time from their residence to their place of work of 30 minutes or more, while 28.8% (the 3<sup>rd</sup> highest of all of the LHINs) had a commute time of 45 minutes or more.

## 2016 Census Profile

	Ontario	Central West	Comments†
<b>Census Population 2016</b>			
Dependency ratio (number of "dependents" for every 100 "workers")	64.5	64.4	
<b>Urban-Rural Gradient</b>			
% large urban	68.1%	87.0%	
% medium/small population centre	14.7%	6.9%	
% rural or small communities adjacent to urban areas	8.4%	4.5%	
% rural and small town	8.8%	1.6%	
Land Area (sq km)	908,699	2,591	
Population Density (persons per square kilometre)	14.8	355.9	
<b>Population by Household and Families</b>			
% of people age 65+ living alone	23.5%	13.8%	<b>Lowest</b>
% of dwellings in need of major repairs	6.1%	4.5%	2 <sup>nd</sup> lowest
% of households with an insufficient # of bedrooms	6.0%	10.9%	<b>Highest</b>
<b>Language</b>			
% who report English as their mother tongue	69.5%	56.6%	2 <sup>nd</sup> lowest
% who report French as their mother tongue	4.3%	1.1%	<b>Lowest</b>
% with no knowledge of English or French	2.5%	4.3%	2 <sup>nd</sup> highest
% Francophone (IDF)	4.7%	1.5%	2 <sup>nd</sup> lowest
<b>Population (in Private Households) Living in Low Income</b>			
% Population living below low-income measure (LIM-AT)	14.4%	12.4%	
% Children living in low income households/LIM (age<6)	19.8%	19.2%	
% Children living in low income households/LIM (age<18)	18.4%	17.6%	
% Seniors living in low income households/LIM (age 65+)	12.0%	9.6%	<b>Lowest</b>
<b>Immigration</b>			
% of population who are immigrants	29.1%	48.3%	2 <sup>nd</sup> highest
% of population who arrived within 5 years	3.6%	6.3%	2 <sup>nd</sup> highest
% first generation Canadian (children of immigrants)	31.1%	50.2%	2 <sup>nd</sup> highest
<b>Visible Minorities</b>			
% of population who are visible minorities	29.3%	63.3%	<b>Highest</b>
<b>Indigenous Identity</b>			
% of population of Aboriginal identity	2.8%	0.8%	
% population First Nations identity	1.8%	0.5%	
% population Metis identity	0.9%	0.2%	
% population Inuk identity	0.0%	0.0%	
% Multiple Aboriginal responses	0.0%	0.0%	
% Aboriginal responses not included elsewhere	0.1%	0.0%	
<b>Educational Attainment</b>			
% Population age 25-64 with less than high school	10.4%	13.4%	
% Population age 25-64 with high school completion	24.5%	27.8%	
% Population age 25-64 with post-secondary education below bachelor's degree	33.2%	30.3%	
% Population age 25-64 with bachelor's degree completion and beyond	31.9%	28.5%	
<b>Labour Force Activity</b>			
% In the labour force (Participation rate)	64.7%	66.9%	
% Unemployed	7.4%	8.1%	
% 60 minutes and over commuting duration	12.4%	16.6%	

†Ranking in the province, compared to other LHINs.

## Sub-Region Profiles, 2016 Census

Sub-Region	North Etobicoke Malton West Woodbridge	Dufferin	Bolton- Caledon	Bramalea	Brampton
<b>Census Population 2016</b>					
Dependency ratio (number of "dependents" for every 100 "workers")	67.7	66.3	67.0	65.0	61.4
<b>Urban-Rural Gradient</b>					
% large urban	100.0%	0.0%	0.0%	98.8%	98.9%
% medium/small population centre	0.0%	45.4%	78.4%	0.0%	0.0%
% rural or small communities adjacent to urban areas	0.0%	35.1%	21.6%	1.2%	1.1%
% rural and small town	0.0%	19.5%	0.0%	0.0%	0.0%
Land Area (sq km)	150	1,800	205	215	222
Population Density (persons per square kilometre)	1,331.7	41.3	188.1	1,285.4	1,504.5
<b>Population by Household and Families</b>					
% of people age 65+ living alone	17.6%	19.3%	13.6%	8.9%	13.2%
% Of dwellings in need of major repairs	6.9%	5.4%	3.7%	3.7%	3.5%
% of households with an insufficient # of bedrooms	17.3%	3.1%	3.9%	11.2%	9.6%
<b>Language</b>					
% who report English as their mother tongue	50.3%	89.0%	75.1%	49.4%	57.1%
% who report French as their mother tongue	1.1%	1.4%	1.1%	0.9%	1.3%
% with no knowledge of English or French	5.0%	0.4%	1.2%	5.7%	4.0%
% Francophone	1.5%	1.5%	1.2%	1.3%	1.7%
<b>Population (in Private Households) Living in Low Income</b>					
% Population living below low-income measure (LIM-AT)	19.0%	8.2%	5.4%	10.9%	11.5%
% Children living in low income households/LIM (age<6)	32.0%	10.5%	6.1%	17.3%	17.0%
% Children living in low income households/LIM (age<18)	29.0%	10.0%	6.2%	15.9%	15.9%
% seniors living in low income households/LIM (age 65+)	12.2%	8.9%	6.3%	7.4%	9.8%
<b>Population by Income Quintiles</b>					
% Economic families in Income quintile 1 - lowest income	26.7%	12.0%	8.2%	16.4%	17.2%
% Economic families in Income quintile 2	24.6%	16.0%	13.2%	23.9%	22.3%
% Economic families in Income quintile 3	19.7%	20.2%	19.8%	23.9%	23.0%
% Economic families in Income quintile 4	16.3%	24.6%	26.4%	21.0%	21.9%
% Economic families in Income quintile 5 - highest income	12.8%	27.2%	32.4%	14.7%	15.6%

Sub-Region	North Etobicoke Malton West Woodbridge	Dufferin	Bolton- Caledon	Bramalea	Brampton
<b>Immigration</b>					
% of population who are immigrants	54.8%	14.4%	22.2%	53.9%	50.1%
% of population who arrived within 5 years	8.3%	0.7%	0.9%	6.7%	6.6%
% first generation Canadian (children of immigrants)	57.5%	15.1%	22.6%	55.7%	52.2%
<b>Visible Minorities</b>					
% of population who are visible minorities	65.4%	8.4%	11.5%	77.9%	68.1%
<b>Indigenous Identity</b>					
% of population of Aboriginal identity	0.5%	1.8%	0.8%	0.6%	0.9%
% population First Nations identity	0.3%	1.1%	0.5%	0.4%	0.5%
% population Metis identity	0.2%	0.5%	0.2%	0.2%	0.3%
% population Inuk identity	0.0%	0.0%	0.0%	0.0%	0.0%
% Multiple Aboriginal responses	0.0%	0.0%	0.0%	0.0%	0.0%
% Aboriginal responses not included elsewhere	0.0%	0.1%	0.0%	0.0%	0.0%
<b>Educational attainment</b>					
% Population age 25-64 with less than high school	16.1%	9.9%	9.7%	14.3%	12.3%
% Population age 25-64 with high school completion	28.0%	31.0%	27.5%	28.3%	26.6%
% Population age 25-64 with post-secondary education below bachelor's degree	29.0%	39.0%	37.7%	27.6%	30.6%
% Population age 25-64 with bachelor's degree completion and beyond	26.8%	20.2%	25.1%	29.8%	30.5%
<b>Labour Force Activity</b>					
% In the labour force (Participation rate)	60.9%	71.7%	73.2%	66.8%	69.0%
% Unemployed	9.5%	5.7%	5.8%	8.0%	8.4%
% 60 minutes and over commuting duration	16.9%	22.1%	16.3%	13.8%	17.5%

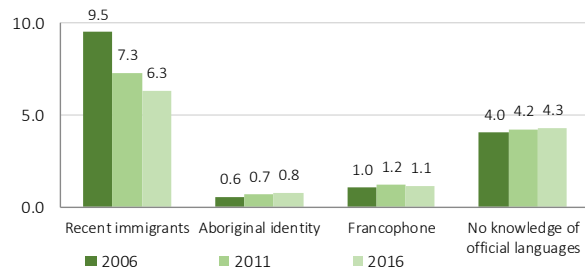
## Central West

### 2016 Census Profile Summary

#### Number of private dwellings

2006	232,475
2011	262,487
2016	286,633

#### Immigration, identity and language (% of population)

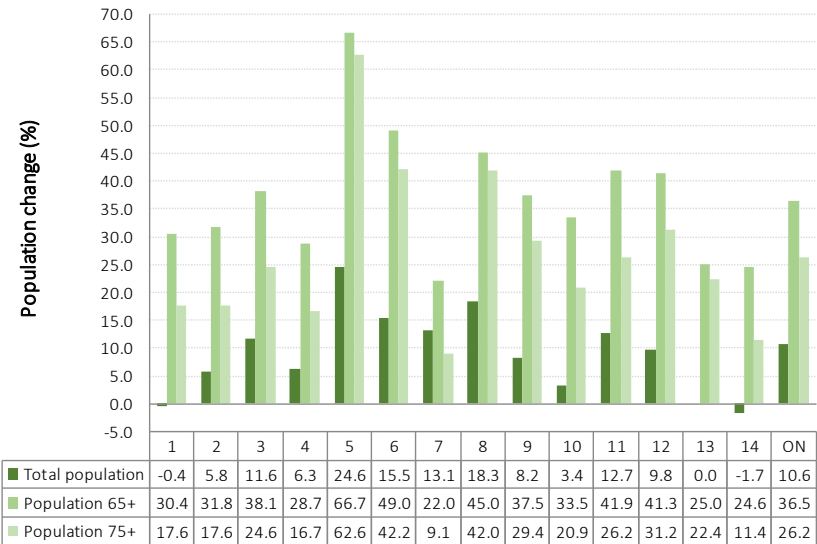


#### Population change (2006-2016)

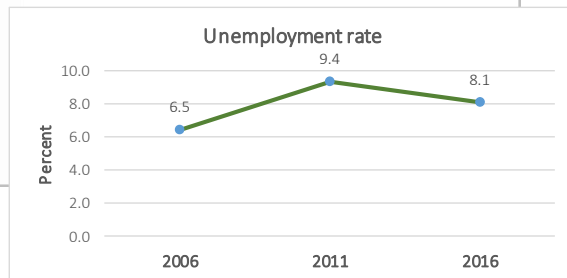
The growth of the senior (65+) population across LHINs ranged from 67% in Central West to 22% in Toronto Central.

The growth of the population age 75+ in Central West between 2006 and 2016 was 62.6%, compared to 26.2% for the province as a whole. Total LHIN population growth was 24.6% for the same period.

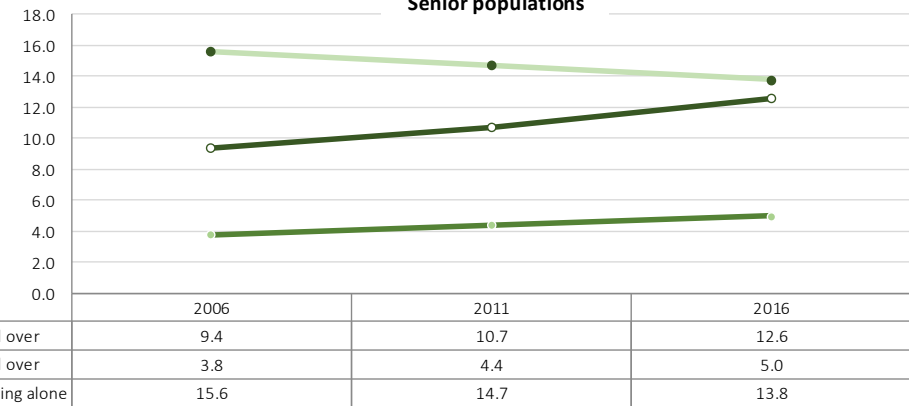
#### Population change, 2006 to 2016, by LHIN



#### Change in unemployment rate, 2006 to 2016 = 25.9%



#### Percent population



## Births and Mortality

### Births and Maternal Age

- In FY 2016/17, there were 11,355 pregnancies and 11,513 births to Central West women. 99% of births took place in a hospital; the remaining 1% were in the home, birth centre or other (including nursing stations, births outside of Ontario and other Ontario locations).
- In 2016, Central West had the **highest** crude birth rate (per 1,000) in the province (12.1).
  - By sub-region, **Brampton** and **Bramalea** have the 4<sup>th</sup> and 5<sup>th</sup> highest crude birth rates in the province (13.3 and 13.0 per 1,000 population).
- The fertility rate per 1,000 Central West females of reproductive age (15 to 49) was 46.7, the 2<sup>nd</sup> highest rate in the province.
  - By sub-region, **Bolton-Caledon** and **Dufferin** have the 4<sup>th</sup> and 7<sup>th</sup> lowest fertility rates for females age 15 to 49 in the province (33.3 and 34.3 per 1,000 population).
- For teenagers (15 to 19), the fertility rate per 1,000 Central West females was 4.3.
- In FY2016, 1.3% of women who gave birth were under 20 years of age. 21.7% of women were 35 years or older.
- In 2016, the overall mean age of mothers giving birth in this LHIN was 30.9.
- In 2016, the stillbirth rate per 1,000 live births in Central West was 10.3, the 2<sup>nd</sup> highest rate in the province.
  - By sub-region, **Brampton** had the 3<sup>rd</sup> highest stillbirth rate in the province (12.2 per 1,000 live births).

### Multiple Births

- The multiple live birth rate per 100 live births in 2016 was 2.8.

### Pre-Term Births

- In 2016, the pre-term birth rate per 100 live births was 9.2, the **highest** rate in the province.
  - By sub-region, **Brampton** and **Bramalea** tied for the 3<sup>rd</sup> highest pre-term birth rate in the province (9.6 per 100 births).

### Size for Gestational Age and Birth Weight

- Central West had the **highest** low birth weight rate per 100 live births in the province (8.8).
  - By sub-region, **Brampton**, **Bramalea** and North Etobicoke Malton and West Woodbridge had the highest, 3<sup>rd</sup> highest and 6<sup>th</sup> highest low birth weight rate in the province (9.6, 9.3 and 8.2, respectively).
- In 2016, the small for gestational age rate per 100 live births was 13.0, the **highest** rate in the province.
  - By sub-region, North Etobicoke, Malton and West Woodbridge, **Brampton** and **Bramalea** had the highest, 4<sup>th</sup> highest and 6<sup>th</sup> highest small for gestational age rate in the province (14.6, 13.4 and 12.8, respectively).
- In 2016, the large for gestational age rate per 100 live births was 7.0, the **lowest** in the province.
  - By sub-region, **Brampton** and **Bramalea** had the 5<sup>th</sup> and 8<sup>th</sup> (tied with North York Central) lowest large for gestational age rate in the province (6.4 and 6.2, respectively).

### Attendants, Assisted Delivery & Epidural Anaesthesia during Labour

- In Central West, 87.8% of hospital births were attended by an obstetrician. 1.4% were attended by a health care provider other than an obstetrician, family doctor or midwife.
- Among vaginal deliveries, the overall assisted delivery rate for Central West women was 13.4 and the assisted delivery rate using vacuum extraction was 10.9. Assisted delivery rate using forceps was 1.9.

- The epidural rate for vaginal deliveries was 56.0. Epidural rate for all deliveries was 46.6.

#### Caesarean Deliveries

- In FY 2016/17, the total Caesarean section rate per 100 deliveries was 31.1, the **highest** rate in the province.
- The rate of primary Caesarean section rate (the mother's first Caesarean, regardless if she had given birth vaginally before) was 19.8 per 100 deliveries. Primary Caesarean section rate was lower in women under 35 years of age (18.8) compared to those 35 and over (23.8).
- Central West had the **highest** repeat Caesarean sections rate per 100 deliveries in the province (86.6).

#### Breastfeeding

- Central West LHIN had the **lowest** rate of exclusive breastfeeding at discharge among term live births in the province (47.4%).

## Births and Maternal Outcomes, Central West

	Central West	Ontario	Comments <sup>†</sup>
Total births in Ontario, LHIN of maternal residence	11,513	141,163	
Hospital	11,358	136,505	
Home	142	3,813	
Birth Centre	<6	572	
Crude birth rate (per 1,000 population)	12.1	9.8	Highest
Stillbirth rate (per 1,000 live births)	10.3	8.1	2 <sup>nd</sup> highest
Multiple live birth rate (per 100 live births)	2.8	3.3	
Rate of preterm birth (<37 weeks) (%) <sup>*</sup>	9.4%	8.2%	Highest
Preterm birth rate (per 100 live births) <sup>**</sup>	9.2	8.1	Highest
Total pregnancies in Ontario, LHIN of maternal residence	11,355	138,781	
Fertility rate (per 1,000 females of reproductive age)			
Overall rate (15 to 49)	46.7	41.2	2 <sup>nd</sup> highest
Teen rate (15 to 19)	4.3	6.3	
Distribution of maternal age (%)			
<20	1.3%	1.9%	
≥ 35	21.7%	23.8%	
Mean age of mother at birth of first infant	29.1	29.3	
Overall mean age of mother at birth	30.9	30.7	
Rate of Caesarean delivery (%), LHIN of hospital	31.0%	28.4%	2 <sup>nd</sup> highest
Total Caesarean Section Rate	31.1	28.4	Highest
Primary Caesarean Section Rate, LHIN of patient	19.8	19.0	
Primary C-Section Rate (< 35 years)	18.8	17.9	
Primary C-Section Rate (≥ 35 years)	23.8	22.9	
Repeat Caesarean Section Rate	86.6	82.7	Highest
Epidural Rate for Vaginal Deliveries	56.0	60.3	
Epidural Rate for All Deliveries	46.6	51.0	3 <sup>rd</sup> lowest
Assisted Delivery Rate Among Vaginal Deliveries			
Overall	13.4	12.3	3 <sup>rd</sup> highest
Vacuum Extraction	10.9	9.1	3 <sup>rd</sup> highest
Forceps	1.9	2.8	
Healthcare provider who caught the baby for hospital births (%), LHIN of hospital			
Obstetrician	87.8%	78.8%	
Family doctor	5.1%	7.4%	
Midwife	5.7%	7.4%	
Other	1.4%	6.4%	3 <sup>rd</sup> lowest
Low birth weight rate (per 100 live births)	8.8	6.8	Highest
Fullterm low birth weight rate (per 100 live births)	2.8	2.0	Highest
Births small for gestational age (%) <sup>*</sup>	13.2%	9.7%	Highest
Small for gestational age (per 100 live births) <sup>**</sup>	13.0	9.6	Highest
Births large for gestational age (%) <sup>*</sup>	6.9%	9.7%	Lowest
Large for gestational age (per 100 live births) <sup>**</sup>	7.0	9.8	Lowest
Rate of exclusive breastfeeding among term live hospital births (%), LHIN of maternal residence <sup>‡</sup>	47.4%	62.8%	Lowest

<sup>‡</sup>Results for exclusive breastfeeding for Central West, Toronto Central, Central, Central East, Unknown LHINs and Ontario should be interpreted with caution due to the large percentage of missing values.

<sup>†</sup>Ranking in the province compared to other LHINs.

<sup>\*</sup> As reported by BORN Ontario

<sup>\*\*</sup> As reported by Public Health Ontario



# **Maternal smoking, alcohol and drug use during pregnancy among all women who live in Ontario and who had a live birth or stillbirth (LHIN of maternal residence), 2016/17 (BORN)**

- In Central West, the rate of women who self-identified as non-smokers at first prenatal visit was 95.5%. At the time of labour, 96.8% were non-smokers.
  - The prevalence of smoking 1-10 cigarettes and 10+ cigarettes at the first prenatal visit was 2.9% and 1.1%, respectively.
- 1.2% of the women reported drinking alcohol, the **lowest** proportion in the province. 1.1% reported using drugs during pregnancy.

	Central West	Ontario	Comments <sup>†</sup>
<b>Maternal smoking at first prenatal visit (%) LHIN of maternal residence<sup>‡</sup></b>			
% women who reported smoking (0) cigarettes/day	95.5%	90.7%	
% women who reported smoking (1 – 10) cigarettes/day	2.9%	5.5%	
% women who reported smoking (10+) cigarettes/day	1.1%	3.2%	
<b>Maternal smoking at time of labour (%)</b>			
% women who reported smoking (0) cigarettes/day	96.8%	92.5%	
% women who reported smoking (1 – 10) cigarettes/day	2.1%	4.6%	
% women who reported smoking (10+) cigarettes/day	0.8%	2.6%	
Alcohol consumption during pregnancy (%)	1.2%	2.6%	<i>Lowest</i>
Drug and substance exposure during pregnancy (%)	1.1%	2.3%	

<sup>†</sup>Ranking in the province compared to other LHINs.

## **Life Expectancy**

- Life expectancy at birth for both males and females in 2012-2014 was 85 years, the **highest** mean amongst all the LHINs. By sex, life expectancy at birth for males in Central West LHIN was 83 years, and 87 years for females.
- Life expectancy at age 65 for both sexes from 2012-2014 was 23 years, the **highest** in the province. By sex, life expectancy at age 65 for males in Central West LHIN was 22 years, and 24 years for females.

	Central West LHIN	Ontario	Rank among LHINs <sup>†</sup>
<b>Life Expectancy</b>			
<b>Life expectancy at birth- Both Sexes 2012-14</b>	84.9	82.3	
<b>Life expectancy at birth- Male 2012-14</b>	82.7	80.2	
<b>Life expectancy at birth- Female 2012-14</b>	86.8	84.3	Highest
<b>Life expectancy at age 65- Both Sexes 2012-14</b>	23.1	20.9	Highest
<b>Life expectancy at age 65- Male 2012-14</b>	21.5	19.3	Highest
<b>Life expectancy at age 65- Female 2012-14</b>	24.3	22.2	2 <sup>nd</sup> highest

<sup>†</sup>Ranking in the province compared to other LHINs (highest and lowest 2).

## **Mortality and Potential Years of Life Lost**

- In 2012, 3,674 of Central West residents died.
- The all-cause mortality rate for LHIN residents was 418 per 100, 000 population in 2012,
  - By sub-region, **Bramalea** had the 2<sup>nd</sup> lowest (328), **Brampton** had the 5<sup>th</sup> lowest (375) and **Bolton-Caledon** had the 7<sup>th</sup> lowest (450) all-cause mortality rate in the province.
- Ischaemic heart disease was the leading cause of death in Central West LHIN, followed by Dementia and Alzheimer's disease and cancer of lung and bronchus.
- 30,120 years of potential life were lost by LHIN residents in 2012.

- The LHIN's PYLL rate for 2012 was 3,577 per 100,000 population aged less than 75. Since 2007, the PYLL rate decreased by 7.6% for Central West LHIN residents.
- The leading causes of PYLL in 2012 were perinatal conditions, Ischaemic heart disease and cancer of lung and bronchus. Central West LHIN had the **highest** rate of PYLL for perinatal conditions amongst all the LHINs (490 per 100,000 population).
- Central West LHIN had the **lowest** rate in the province (186) for PYLL (per 100,000 population) for cancer of lung and bronchus.

### Mortality and Potential Years of Life Lost

	Central West	Ontario	Rank across LHINs†	Range across CW sub-regions (2010-2012)
<b>Mortality, 2012</b>				
Total deaths, 2012	3,674	90,525		168-1,182
% change in total deaths (2007-2012)	15.1%	4.1%		NA
All-cause mortality rate per 100,000 population	417.5	675		327.5-613.6
% change in all-cause mortality rate (2007-2012)	2.8%	-0.7%		NA
% of deaths that were premature (age < 75)	44.8%	37.3%	Highest	38.7%-50.7%
<b>Top 10 leading causes of death, 2012 (rates per 100,000 population)<sup>3</sup></b>				
Ischaemic heart disease	60.0	98.0	2 <sup>nd</sup> lowest	49.0-81.1
Dementia & Alzheimer's disease	34.0	55.6	lowest	17.5-56.6
Cancer of lung & bronchus	27.0	50.3	lowest	20.9-41.2
Cerebrovascular diseases	24.5	36.6	2 <sup>nd</sup> lowest	22.4-43.1
Chronic lower respiratory diseases	14.1	28.4	Lowest	8.9-34.0
Cancer of colon, rectum, anus	12.4	23.4	lowest	9.4-22.2
Diabetes	11.3	20.7	2 <sup>nd</sup> lowest	0.0-19.2
Cancer of lymph, blood & related	12.8	20.0	Lowest	9.0-17.0
Influenza & pneumonia	9.4	15.2	Lowest	NA
Diseases of urinary system	9.5	13.1	2 <sup>nd</sup> lowest	NA
<b>Potential years of life lost (PYLL), 2012</b>				
Total PYLL, 2012	30,120	551,256		1,228-11,360
% change in PYLL (2007-2012)	1.7%	-0.6%		NA
PYLL rate per 100,000 population (age < 75)	3,577	4,405		3,456.9-4,378.6
% change in PYLL rate (2007-2012)	-7.6%	-5.0%		NA
<b>Top 10 leading causes of PYLL, 2012 (rates per 100,000 population, age &lt; 75)<sup>4</sup></b>				
Ischaemic heart disease	283.7	406.8		251.0-372.0
Cancer of lung & bronchus	186.0	322.6		156.9-261.8
Intentional self-harm	174.3	284.7		175.5-332.9
Perinatal conditions	489.6	253.3	highest	189.9-607.5
Transport accidents	157.7	171.8		102.3-404.6
Cancer of lymph, blood & related	120.9	149.1	2 <sup>nd</sup> lowest	NA
Congenital malformations, deformations, chromosomal	155.7	149.0		69.7-184.2
Cancer of breast	135.4	147.0		95.2-199.5
Cirrhosis & other liver diseases	100.7	133.5	3 <sup>rd</sup> lowest	NA
Cerebrovascular diseases	104.5	100.4		NA

†Ranking in the province, compared to other LHINs.

<sup>3</sup> Mean rate from 2010-2012

<sup>4</sup> Mean rate from 2010-2012

## General Health, Risk Factors, and Prevention

### General Health

- In 2015-16, 55% of Central West LHIN residents said they had very good or excellent health, **significantly lower** than the Ontario mean.
  - A **significantly lower** proportion of residents of **North Etobicoke Malton West Woodbridge** sub-region indicated that they had *very good or excellent* health, while **Dufferin** sub-region residents indicated **significantly higher** rates of self-perceived health than Ontarians overall.
- 74% reported very good or excellent mental health. The proportion reporting very good or excellent mental health declined between 2005-2014 in Ontario and most LHINs but it did not decline in the Central West LHIN.
  - Compared to Ontario, *very good or excellent* mental health is significantly more prevalent in the **Bramalea** sub-region.
- 24% of Central West residents reported that most days were “quite a bit” or “extremely” stressful.

### Prevention

- 92% of Central West residents reported having a regular medical doctor.
  - Compared to Ontario, the proportion of people with a regular medical doctor was **significantly higher** in the sub-regions of **Dufferin**, **Bramalea** and **Brampton**.
- 26% of residents of Central West LHIN indicated that they received a flu shot in the year preceding the survey, **significantly lower** than the Ontario rate of 33%.

### Risk Factors

- 13% of Central West residents reported daily or occasional smoking in 2015-16. Smoking rates have been declining over time.
- 15% of Central West residents reported heavy drinking. Heavy drinking is defined as having consumed 5 or more drinks for males and 4 or more drinks for women on at least one occasion at least once a month during the past year.
- Approximately 2 in 3 (67%) adult Central West residents were either overweight or obese. Overweight and obesity are rising over time in Ontario, and many of the LHINs. Between 2004 and 2015, the proportion of people who were overweight or obese rose from 49% to 57%<sup>5</sup>.
  - Overweight or obesity rates were **significantly higher** than Ontario (53%) in **Bolton-Caledon** (68%).
- 50% of Central West residents were physically inactive—now defined as less than 150 minutes of moderate to vigorous activity per week. The rate is one of the two highest among LHINs and **significantly higher** than the Ontario rate of 42%.
  - In terms of sub-regions, rates of inactivity were **significantly higher** than Ontario in the sub-regions of **North Etobicoke Malton West Woodbridge**, **Bramalea**, and **Brampton**.
- 73% of Central West residents did not consume enough fruits and vegetables (i.e., had fewer than 5 servings of fruits or vegetables daily).

---

<sup>5</sup> 2005 to 2014 rates are not directly comparable with those from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

## General Health, Risk Factors, and Prevention; Central West LHIN

	Central West LHIN 2015-16	Ontario (2015-16)	Rank among LHINs† (2015-16)	Range across CW sub-regions (2011-14)*
<b>General Health</b>				
General health, % of the population age 12+ with...				
Very good or excellent self-perceived health	55% <sup>-1</sup>	61%	2 <sup>nd</sup> lowest	51-69%
Very good or excellent self-perceived mental health	74%	71%	Highest	71-76%
Days that are 'quite a bit' or 'extremely' stressful (age 15+)	24%	22%	2 <sup>nd</sup> highest	
<b>Prevention</b>				
Use of Health Services and Preventive Care, % of the population age 12+ who...				
Have a regular medical doctor	92%	90%		90-96%
Have consulted with family doctor/general practitioner (past yr)	75%	74%		
Received flu shot in the past year	26% <sup>-1</sup>	33%	Lowest	
<b>Risk Factors</b>				
Risk factors, % of the population age 12+ who...				
Are daily or occasional smokers	13%	17%	2 <sup>nd</sup> lowest	11-21%
Are exposed to second-hand smoke in the home	5.2% <sup>C</sup>	6.9%	3 <sup>rd</sup> lowest	
Are heavy drinkers	15%	18%	2 <sup>nd</sup> lowest	
Are overweight or obese (age 18+)	67%	61%		52-68%
Are overweight (age 18+)	39%	35%	Highest	33-52%
Are obese (age 18+)	29%	26%		16-21% <sup>C</sup>
Are physically inactive	50% <sup>1</sup>	42%	2 <sup>nd</sup> highest	33-61%
Consume < 5 servings of fruits/vegetables daily	73%	72%		41-63%

\*2011-2014 sub-region rates are not directly comparable with LHIN and Ontario rates from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

†Top or bottom 3 ranking in the province, compared to other LHINs. Interpret with caution, rank based on point estimate, which may or may not be significantly different from Ontario. See significance flags for each measure below.

<sup>1</sup> LHIN is **significantly higher** than Ontario

<sup>-1</sup> LHIN is **significantly lower** than Ontario

<sup>C</sup> Estimates with high sampling variability (CV between 16.6 -33.3) must be used with caution.

## Chronic Conditions

### Prevalence, mortality, hospital separations and hospital days of stay for selected chronic conditions

- 38.4% of Central West residents (aged 12+) reported having a one or more chronic conditions while 17% had two or more chronic conditions.
- Chronic conditions with the highest or lowest prevalence rates compared to other LHINs were as follows: Asthma - 2<sup>nd</sup> highest; Diabetes – **Highest**.
- The mean health care cost per user for Central West residents in 2015/16 was \$2,150 (\$2,750 for Ontario). CW LHIN was among the 3 LHINs with the lowest mean health care cost per user.
- 5.1% of the patients were complex (4+ conditions), 5.8% for Ontario. CW LHIN was among the 3 LHINs with the lowest proportion of complex patients.
- The mean healthcare cost of a complex patient was \$18,300 compared to \$22,050 for Ontario. CW LHIN was among the 3 LHINs with the lowest mean cost per complex patient.
- 3.6% of the patients were high cost user patients, 5.0% for Ontario. CW LHIN was among the 3 LHINs with the lowest proportion of high cost user patients.
- The mean healthcare cost per high cost user was \$35,700 compared to \$37,700 for Ontario. CW LHIN was among the 3 LHINs with the lowest mean cost per high cost user.
- The hospitalization rate (per 100,000 population) for asthma in Central West LHIN was 54.2 compared to 34.3 for Ontario. CW LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for chronic obstructive pulmonary disease in Central West LHIN was 118.7 compared to 171.8 for Ontario. CW LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for ischemic heart disease in Central West LHIN was 400.3 compared to 314.8 for Ontario. CW LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for stroke in Central West LHIN was 127.8 compared to 112.5 for Ontario. CW LHIN was among the 3 LHINs with the highest rates.

### Chronic Conditions, Complex Patients

Condition	Central West	Ontario	Comment
<b>Self-reported prevalence (2015-16), rate per 100, age 12+</b>			
Arthritis	17.3	20.6	
Asthma	9.9	8.7	2 <sup>nd</sup> highest
Cancer		1.3	
Chronic Obstructive Pulmonary Disease (COPD) (age 35+)	3.1 <sup>D</sup>	4.0	
Diabetes	10.4	7.4	Highest
High blood pressure	19.1	18.2	
Heart disease	4.7 <sup>C</sup>	4.6	
Suffer from effects of stroke		1.3	
Have a chronic condition	38.4	39.6	
Have multiple chronic conditions <sup>1</sup>	17.0	16.2	

C: 0.15<CV<=0.25 Marginal (Use with caution-high sampling variability)

D: 0.25<CV<=0.35 Marginal (Use with caution-high sampling variability)

1 - Of the selected conditions on this list

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>			
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	54.2	34.3	
Cardiovascular disease	1,028.5	916.9	
Cerebrovascular disease	150.3	133.2	
COPD	118.7	171.8	
Diabetes	102.8	100.2	
Hypertension	20.9	18.0	
Ischemic heart disease	400.3	314.8	
Lower respiratory disease	177.3	208.9	
Respiratory disease	608.5	599.7	
Stroke	127.8	112.5	
<b>Complex Patients and high cost users, 2015/16</b>			
Mean health care cost per user \$	\$ 2,150	\$ 2,750	
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$ 18,300	\$ 22,050	
# of patients that are complex	42,705	680,115	
% of all patients (health care users) that are complex	5.1%	5.8%	
<b>High cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$ 35,700	\$ 37,700	
# of patients that are high cost users	29,945	581,670	
% of patients that are high cost users	3.6%	5.0%	

#### NORTH ETOBICOKE MALTON WEST WOODBRIDGE SUB-REGION (501)

- The age standardized rate (per 100,000) for hospitalization for asthma was 86.3 (Ontario - 34.3). **North Etobicoke Malton West Woodbridge** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **North Etobicoke Malton West Woodbridge** sub-region was \$2,600 (Ontario - \$2,750).
- 6.6% of patients from **North Etobicoke Malton West Woodbridge** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **North Etobicoke Malton West Woodbridge** sub-region was \$19,500 (Ontario - \$22,050).
- 4.4% of patients from **North Etobicoke Malton West Woodbridge** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **North Etobicoke Malton West Woodbridge** sub-region was \$38,800 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	North Etobicoke Malton West Woodbridge	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	16.3	17.3	50
Asthma	5.9	7.8	62
Diabetes	6.9	6.8	36
High blood pressure	20.3	18.1	32
Heart disease	4.2	5.0	57

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
AGE STANDARDIZED rate per 100,000			
Asthma	86.3	34.3	1
Cardiovascular disease	1,102.9	916.9	19
Cerebrovascular disease	151.7	133.2	30.5
COPD	121.7	171.8	62
Diabetes	116.6	100.2	31
Hypertension	26.9	18.0	9.5
Ischemic heart disease	389.9	314.8	23
Lower respiratory disease	216.7	208.9	43
Respiratory disease	677.8	599.7	32
Stroke	131.6	112.5	24

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,600	\$ 2,750	53.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$19,500	\$ 22,050	64.5
# of patients that are complex	12,310	680,115	
% of all patients (health care users) that are complex	6.6%	5.8%	22
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$38,800	\$ 37,700	23
# of patients that are high cost users	8,190	581,670	
% of patients that are high cost users	4.4%	5.0%	58

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.



### DUFFERIN SUB-REGION (502)

- The age standardized rate (per 100,000) for hospitalization for asthma was 11.8 (Ontario - 34.3). **Dufferin** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Dufferin** sub-region was \$2,500 (Ontario - \$2,750).
- 5.2% of patients from **Dufferin** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Dufferin** sub-region was \$21,400 (Ontario - \$22,050).
- 4.6% of patients from **Dufferin** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Dufferin** sub-region was \$34,950 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Dufferin	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	17.2	17.3	44
Asthma	6.1	7.8	59
Diabetes	5.5	6.8	57
High blood pressure	15.3	18.1	59
Heart disease	4.5	5.0	49

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	11.8	75
Cardiovascular disease	897.2	53
Cerebrovascular disease	132.8	47
COPD	203.2	37
Diabetes	104.2	41
Hypertension	22.1	17.5
Ischemic heart disease	315.3	46
Lower respiratory disease	216.1	44
Respiratory disease	683.4	31
Stroke	100.2	60

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$2,500	57
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$21,400	44.5
# of patients that are complex	3,365	
% of all patients (health care users) that are complex	5.2%	56
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$34,950	61.5
# of patients that are high cost users	2,980	
% of patients that are high cost users	4.6%	55

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

### BOLTON-CALEDON SUB-REGION (503)

- The age standardized rate (per 100,000) for hospitalization for diabetes was 63.7 (Ontario - 100.2). **Bolton-Caledon** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Bolton-Caledon** sub-region was \$2,050 (Ontario - \$2,750). It was among the 8 sub-regions with the lowest mean cost per user.
- 4.8% of patients from **Bolton-Caledon** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Bolton-Caledon** sub-region was \$17,800 (Ontario - \$22,050). It was among the 8 sub-regions with the lowest mean cost per complex patient.
- 3.6% of patients from **Bolton-Caledon** sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the lowest percentage of high cost users.
- The mean health care cost per high cost user in **Bolton-Caledon** sub-region was \$34,400 (Ontario - \$37,700). It was among the 8 sub-regions with the lowest mean cost per high cost user.

## Chronic Conditions, Complex Patients

Condition	Bolton-Caledon	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	13.3	17.3	66
Asthma	F	7.8	
Diabetes	F	6.8	
High blood pressure	17.1	18.1	51
Heart disease	F	5.0	

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>		<b>Ontario</b>	<b>Ranking*</b>
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	39.4	34.3	28
Cardiovascular disease	774.0	916.9	68
Cerebrovascular disease	116.8	133.2	62
COPD	99.6	171.8	66
Diabetes	63.7	100.2	69
Hypertension	-	18.0	0
Ischemic heart disease	266.5	314.8	60
Lower respiratory disease	139.1	208.9	67
Respiratory disease	530.3	599.7	60
Stroke	99.0	112.5	62

<b>Complex Patients and high cost users, 2015/16</b>		<b>Ontario</b>	<b>Ranking*</b>
Mean health care cost per user \$	\$2,050	\$ 2,750	70.5
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$17,800	\$ 22,050	74
# of patients that are complex	1,625	680,115	
% of all patients (health care users) that are complex	4.8%	5.8%	62
<b>High cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$34,400	\$ 37,700	70
# of patients that are high cost users	1,215	581,670	
% of patients that are high cost users	3.6%	5.0%	70

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## BRAMALEA SUB-REGION (504)

- The prevalence rate (per 100) for the population with arthritis (14+) was 12 (Ontario - 17.3). **Bramalea** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The prevalence rate (per 100) for the population with heart disease was 2.6 (Ontario - 5). **Bramalea** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The mean health care cost per user in **Bramalea** sub-region was \$1,900 (Ontario - \$2,750). It was among the 8 sub-regions with the lowest mean cost per user.
- 4.6% of patients from **Bramalea** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Bramalea** sub-region was \$17,050 (Ontario - \$22,050). It was among the 8 sub-regions with the lowest mean cost per complex patient.
- 3.1% of patients from **Bramalea** sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the lowest percentage of high cost users.
- The mean health care cost per high cost user in **Bramalea** sub-region was \$34,300 (Ontario - \$37,700). It was among the 8 sub-regions with the lowest mean cost per high cost user.

## Chronic Conditions, Complex Patients

Condition	Bramalea	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	12.0	17.3	70
Asthma	6.1	7.8	58
Diabetes	7.7	6.8	29
High blood pressure	17.3	18.1	49
Heart disease	2.6	5.0	67

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
AGE STANDARDIZED rate per 100,000			
Asthma	43.2	34.3	19
Cardiovascular disease	1,078.4	916.9	22
Cerebrovascular disease	170.2	133.2	12
COPD	96.9	171.8	67
Diabetes	100.5	100.2	43
Hypertension	17.9	18.0	35
Ischemic heart disease	463.7	314.8	10
Lower respiratory disease	144.1	208.9	65.5
Respiratory disease	606.0	599.7	46
Stroke	147.2	112.5	9

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$1,900	\$ 2,750	74
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$17,050	\$ 22,050	76
# of patients that are complex	11,665	680,115	
% of all patients (health care users) that are complex	4.6%	5.8%	66
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$34,300	\$ 37,700	71
# of patients that are high cost users	7,810	581,670	
% of patients that are high cost users	3.1%	5.0%	74

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## BRAMPTON SUB-REGION (505)

- The prevalence rate (per 100) for the population with arthritis (14+) was 12.7 (Ontario - 17.3). **Brampton** sub-region's rate was **significantly lower** than Ontario.
- The prevalence rate (per 100) for the population with asthma was 5.4 (Ontario - 7.8). **Brampton** sub-region's rate was **significantly lower** than Ontario.
- The prevalence rate (per 100) for the population with heart disease was 2.1 (Ontario - 5). **Brampton** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The age standardized rate (per 100,000) for hospitalization for asthma was 58.4 (Ontario - 34.3). **Brampton** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **Brampton** sub-region was \$1,950 (Ontario - \$2,750). It was among the 8 sub-regions with the lowest mean cost per user.
- 4.7% of patients from **Brampton** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Brampton** sub-region was \$17,550 (Ontario - \$22,050). It was among the 8 sub-regions with the lowest mean cost per complex patient.
- 3.3% of patients from **Brampton** sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the lowest percentage of high cost users.
- The mean health care cost per high cost user in **Brampton** sub-region was \$34,600 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Brampton	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	12.7	17.3	69
Asthma	5.4	7.8	65
Diabetes	7.7	6.8	31
High blood pressure	14.9	18.1	64
Heart disease	2.1	5.0	68

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>		<b>Ontario</b>	<b>Ranking*</b>
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	58.4	34.3	6
Cardiovascular disease	1,055.1	916.9	28
Cerebrovascular disease	152.9	133.2	29
COPD	122.1	171.8	61
Diabetes	105.4	100.2	39
Hypertension	22.1	18.0	17.5
Ischemic heart disease	424.2	314.8	12
Lower respiratory disease	183.5	208.9	52
Respiratory disease	592.3	599.7	50
Stroke	129.4	112.5	25

<b>Complex Patients and high cost users, 2015/16</b>		<b>Ontario</b>	<b>Ranking*</b>
Mean health care cost per user \$	\$1,950	\$ 2,750	72.5
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$17,550	\$ 22,050	75
# of patients that are complex	13,735	680,115	
% of all patients (health care users) that are complex	4.7%	5.8%	64
<b>High cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$34,600	\$ 37,700	68
# of patients that are high cost users	9,755	581,670	
% of patients that are high cost users	3.3%	5.0%	72

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.



## Human Resources

### Physicians

- In 2016, there were approximately 1,214 physicians in CW LHIN
  - This represents the equivalent of approximately 130 physicians for every 100,000 persons in CW LHIN.
  - The number of physicians in CW LHIN increased by close to 15% between 2013 and 2016 with similar growth occurring among both family medicine physicians and specialists.
- Between 2013 and 2016, there was an increase of approximately 88 family physicians in CW LHIN
  - The majority of the increase in CW LHIN occurred with 62 additional family physicians between 30-64 years of age.
- In 2016, approximately 16% of family physicians in CW LHIN were at or beyond the age of retirement (65 years of age or older).

### Nurses

- In 2016, there were 4,810 total nurses in CW LHIN.
- The total number of nurses increased by 18% between 2013 and 2016,
  - CW LHIN had the most substantial increase in nurses of all types (RNs – 14% increase, RPNs – 26% increase, NPs – 47% increase) among all LHINs between 2013 and 2016, however, as of 2016, CW LHIN remains the LHIN with the lowest rate of nurses per 100,000 population among all LHINs.
- In 2016, there were approximately 514 nurses for every 100,000 residents of CW LHIN.

### Other Allied Health Professionals

- Between 2013 and 2016, the greatest growth in the number of allied health professionals in CW LHIN was among Midwives (an increase of 5 or approximately 63%) and Pharmacists (an increase of 14 or about 30%).
- There was also notable growth in the number of Optometrists (additional 15 or 15%), Occupational Therapists (14 additional or 13%), and Audiologists (1 additional or 9%) in CW LHIN between 2013 and 2016.
- Opticians in CW LHIN experienced a 4% reduction in their raw numbers (6 fewer) and slightly higher reductions in their numbers per capita.

CW LHIN					
Physicians	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Total Family Medicine Physicians</b>					
Number of family medicine physicians	603	631	645	691	14.6%
Rate per 100,000 population	67.7	69.7	70.3	73.9	9.1%
<b>Total Specialists</b>					
Number of specialists	457	484	492	523	14.4%
Rate per 100,000 population	51.3	53.4	53.6	55.9	9.0%
<b>Total Physicians</b>					
Number of total physicians	1,060	1,115	1,137	1,214	14.5%
Rate per 100,000 population	119.0	123.1	124.0	129.8	9.1%

Family Physicians, by age group - count					
Age <30	19			13	-31.6%
Age 30-64	508			570	12.2%
Age 65-74	65			95	46.2%
Age 75+	11			13	18.2%
Grand Total	603			691	14.6%
Age 65+	76			108	42.1%

Family Physicians, by age group – percent					
Age <30	3.2%			1.9%	-40.3%
Age 30-64	84.2%			82.5%	-2.1%
Age 65-74	10.8%			13.7%	27.5%
Age 75+	1.8%			1.9%	3.1%
Age 65+	12.6%			15.6%	24.0%

CW LHIN					
Nurses	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Registered Nurses</b>					
Number of RNs	2,865	3,220	3,284	3,265	14.0%
Rate per 100,000 population	320.9	355.5	358.0	349.1	8.8%
<b>Registered Practical Nurses</b>					
Number of RPN nurses	1,173	1,267	1,381	1,482	26.3%
Rate per 100,000 population	131.4	139.9	150.6	158.5	20.6%
<b>Nurse Practitioners</b>					
Number of NP nurses	43	49	61	63	46.5%
Rate per 100,000 population	4.8	5.4	6.7	6.7	39.9%
<b>Total Nurses</b>					
Total Nurse - Number of nurses	4,081	4,536	4,726	4,810	17.9%
Total Nurse - Rate per 100,000 population	457.1	500.9	515.2	514.3	12.5%

CW LHIN					
Other Regulated Health Professionals	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Audiologists</b>					
Audiologist - Number	11	11	9	12	9.1%
Audiologist - Rate per 100,000 population	1.2	1.2	1.0	1.3	4.2%
<b>Midwives</b>					
Midwife - Number	8	11	12	13	62.5%
Midwife - Rate per 100,000 population	0.9	1.2	1.3	1.4	55.1%
<b>Occupational Therapists</b>					
Occupational Therapist - Number	112	115	118	126	12.5%
Occupational Therapist - Rate per 100,000 population	12.5	12.7	12.9	13.5	7.4%
<b>Opticians</b>					
Optician - Number	158	160	172	152	-3.8%
Optician - Rate per 100,000 population	17.7	17.7	18.8	16.3	-8.1%
<b>Optometrists</b>					
Optometrist - Number	103	117	111	118	14.6%
Optometrist - Rate per 100,000 population	11.5	12.9	12.1	12.6	9.4%
<b>Pharmacists</b>					
Pharmacist - Number	539	597	650	700	29.9%
Pharmacist - Rate per 100,000 population	60.4	65.9	70.9	74.9	24.0%
<b>Psychologists</b>					
Psychologist - Number	86	89	83	85	-1.2%
Psychologist - Rate per 100,000 population	9.6	9.8	9.0	9.1	-5.6%
<b>Speech-Language Pathologists</b>					
Speech-Language Pathologist - Number	84	88	88	91	8.3%
Speech-Language Pathologist - Rate per 100,000 population	9.4	9.7	9.6	9.7	3.4%

## Primary Care

### Primary Care Enrolment

- Almost 774,000 Central West LHIN residents were enrolled with a PEM located in 2016/2017, and 22% of patients enrolled were associated with a FFS physician.
- A large majority of patients enrolled in a PEM were associated with a FHG (n=293,686).
- Across 48 practices in 2017, there were 594 physicians, 300 were affiliated with a FHG. Only 7 practices with 85 physicians were affiliated with a FHT.

### Selected Measures from the Health Care Experience Survey

#### Self-reported access to, and satisfaction with, primary care

	Ontario (2017)	LHIN (2017)	Range Across CW sub-regions (2014-2017)
Percentage who are satisfied with health care in their community	87%	86%	81% to 92%
Percentage with primary care providers (attached patients)	94%	94%	93% to 97%
Percentage who saw their primary care provider within the same day/next day when sick	40%	49% <sup>H</sup>	50% to 60%*
Percentage who went to ED for something that could have been treated by primary care provider	42%	42%	32% to 45%
Percentage who found it difficult to access care after-hours without going to an emergency department	53%	49%	37% to 51%
Percentage who went to walk-in clinic in past 12 months	30%	43% <sup>H</sup>	21% to 46%
Percentage who went to a walk in clinic for something that could have been treated by provider if they were available	92%	95%	93% to 95%

<sup>H</sup>=significantly higher than the province

<sup>L</sup>=significantly lower than the province

\*Some sub-regions did not report

- 86% of LHIN residents reported satisfaction with health care in their community.
- In 2017, 93.8% of Central West adults (aged 16 years and older) had a primary care provider.
  - Across the LHIN, 83% of Central West residents were satisfied with health care in 2017. **Dufferin** sub-region reported a **significantly higher** proportion than the province (92%) for this measure, and **Brampton** sub-region reported a **significantly lower** proportion than the province (81%).
- Central West LHIN was the top LHIN for the proportion of residents who can see their primary care provider same day or next day when they're sick (49%), **significantly higher** than the province (40%).
  - **Bramalea** (60%), **Brampton** (50%), and **North Etobicoke Malton West Woodbridge** (57%) were **significantly higher** than the provincial proportion.
- Forty-two percent (42%) of adults went to the ED for something that they felt could have been treated by primary care provider.
- In 2017, 49% LHIN residents found it difficult to access after-hours care without going to the ED
  - Sub-regional experience ranged from 37% in **Bolton-Caledon** (**significantly lower** than the province) to 51% in **Dufferin** sub-region.

- 43% of residents reported having visited a walk-in clinic in the previous 12 months, **significantly higher** than the provincial value (30%). In Central West LHIN, there was a wide range of proportions of residents who attended a walk-in clinic in the previous 12 months.
  - While **Dufferin** reported a **significantly lower** proportion (21%), all other sub-regions reported **significantly higher** proportions of walk-in visitors (from 44% in **Bramalea** to 46% in **Brampton**). Of those who went to a walk-in clinic, 95% felt that their condition could have been treated by a primary care provider if they were available.
  - 95% went to a walk in clinic for something that they felt could have been treated by a primary care provider if they were available.

## Community Care

- Central West LHIN ranks **lowest** in CMH&A\_Community Visits-Face to Face Visits per 1,000 population with 96 (province is 232).
- Central West LHIN ranks **lowest** in CMH&A\_Community Group Participants Patient Attendances per 1,000 population with 30 (province is 65).
- Central West LHIN ranks **lowest** in CSS\_Community Visits-Face to Face Visits per 1,000 population with 102 (province is 385).
- Central West LHIN ranks **lowest** in CSS\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population with 3 (province is 28).
- Central West LHIN ranks **lowest** in CSS\_Community Group Participants Patient Attendances per 1,000 population with 6 (province is 33).
- Central West LHIN ranks **lowest** in CSS\_Community Visits-Face to Face Visits per 1,000 population 75+ with 2,110 (province is 5,365).
- Central West LHIN ranks **highest** in CSS\_Community Visits- Non Face to Face Visits per 1,000 population 75+ with 3,055 (province is 1,556).
- Central West LHIN ranks **lowest** in CSS\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population 75+ with 52 (province is 397).
- Central West LHIN ranks **lowest** in CSS\_Community Group Participants Patient Attendances per 1,000 population 75+ with 131 (province is 465).

## Mental Health

### Wait Time for Community Services

- Support within housing and centralized/coordinated access have the longest median wait times among the community mental health (MH) services in Central West LHIN in 2017/18. With the exception of support within housing, centralized/coordinated access and case management, Central West LHIN had shorter median wait times than the province for all community MH services in 2017/18.
- Among the substance abuse (SA) services provided in Central West LHIN, case management and residential treatment had the longest median wait times (73 and 243 days) in 2017/18. The median wait time in this LHIN was 63 and 201 days longer than the province for those two services.
- Only community treatment is provided in this LHIN for problem gambling. The median wait time for this treatment was 21 days, 10 days longer than the provincial median wait of 10 days.

### Mental Health and Substance Abuse Emergency Department Visits

- In 2016/17, there were 14,081 unscheduled ED visits for Central West residents where the main problem was a MH/SA condition. There were 16,443 visits with a MH/SA condition in any of the diagnostic fields.
- Between 2013/14 and 2016/17, there was a 25.1% growth in visits with a MH/SA main problem diagnosis (higher than the province's value of 20.9%) and a 25.2% growth in visits with a MH/SA condition in any diagnostic field (higher than the province's value of 21.1%).
- The MH/SA ED visit rate (main diagnosis) per 1,000 population for Central West LHIN residents was the third lowest rate in the province at 15.1. The main problem visit rate increased by 19.1% between 2013/14 and 2016/17.
  - By sub-region, **Bolton-Caledon** had the 5<sup>th</sup> lowest ED visit rate (10.5 per 1,000 population) where the main problem was a MH/SA condition.
  - Where a MH/SA condition was in any of the diagnostic fields, **Bolton-Caledon** also had the 5<sup>th</sup> lowest rate (12.1 per 1,000 population).
- Visits with a MH/SA main problem diagnosis accounted for 4.4% of all ED visits for Central West LHIN residents.
- In 2016/17, there were 166 ED visits of Central West residents for opioid overdose. Of those, 41.6% were accidental.
- The crude rate of ED visits for opioid overdose in FY 2016/17 for Central West residents was 1.8, the second lowest rate in the province. Between 2013/14 and 2016/17, there was a 56.9% growth in the visit rate for opioid overdose for all Central West residents, higher than the province (48.4%).

## Unscheduled emergency department utilization for mental health and substance abuse conditions, Central West LHIN and Ontario residents, 2016/17

Measure	Central West LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient<sup>†</sup></b>				
Main problem visits	14,081	268,514	25.1%	
% of total ED visits	4.4%	4.3%	-	
Any problem visits	16,443	338,260	25.2%	
% of total ED visits	5.2%	5.5%	-	
Main problem, visits per 1,000	15.1	19.2	19.1%	3 <sup>rd</sup> lowest
Any problem, visits per 1,000	17.6	17.1%	19.3%	3 <sup>rd</sup> lowest
ED visits for opioid overdose	166	4,831	64.4%	
% of visits that were accidental	41.6%	50.1%	-	
Crude rate per 10,000 population	1.8	3.5	56.9%	2 <sup>nd</sup> lowest

<sup>†</sup>LHIN of patient results for Ontario exclude out-of-province residents

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

### Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility

- In 2016/17, there were 13,310 unscheduled ED visits in Central West LHIN hospitals, where the main problem was a MH/SA condition. 2.3% of these visits were made by homeless individuals.
- There were 2,449 admissions and 2,517 active cases who received treatment in adult designated MH units in Central West LHIN hospitals. There were 2,466 discharges from these units with the total days of discharge patients equal to 28,116 days. The mean length of stay in Central West LHIN MH units was 11.4 days, the **lowest** in the province. Residents from outside the LHIN accounted for 21.3% of the active cases treated in Central West LHIN.
- Between 2013/14 and 2016/17, active cases, admissions and discharges decreased in Central West LHIN hospitals by 3.9%, 3.0% and 2.4%, respectively. The total days of discharged patients increased by 1.3%.
- Short stay (31.8%), schizophrenia and psychotic disorders (31.1%) and bipolar and depressive disorders (30.2%) and accounted for the largest proportions of active cases in Central West LHIN hospitals in 2016/17. Compared with the provincial values, Central West had larger proportions of active cases for all three of these disorders.
- There were 2,750 active cases, 2,627 admissions and 2,643 discharges for Central West LHIN residents from Ontario adult designated MH units. Mean length of stay for Central West LHIN residents was the **lowest** in the province at 15.5 days. 28.0% of Central West LHIN resident active cases received treatment in hospitals outside the LHIN. Compared with the provincial rates, Central West LHIN residents had lower rates of active cases, admissions, and discharges per 100,000 population age 15+.
  - By sub-region, **North Etobicoke Malton West Woodbridge** had the 2<sup>nd</sup> shortest mean length of stay among all sub-regions (10.4).
  - **Bolton-Caledon** sub-region had the 2<sup>nd</sup> lowest crude rates of active cases (251.0) and admissions (233.7) per 100,000. This sub-region also had the 4<sup>th</sup> lowest crude rate discharges (242.3) per 100,000 population among the 76 sub-regions.
- Active cases, admissions, discharges, total days and the associated rates decreased for Central West LHIN residents between 2013/14 and 2016/17. Central West LHIN had the second lowest active cases, admissions and discharge rates in the province.



### Adult designated mental health unit utilization, Central West LHIN hospitals and residents, 2016/17

Measure	Central West LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient</b>				
Active cases	2,750	64,523	2.8%	
Admissions	2,627	60,197	4.4%	
Discharges	2,643	60,607	4.0%	
Total Days	40,890	1,504,690	-22.7%	
Mean Length of Stay	15.5	24.8	-	<b>Lowest</b>
% Outflow Active Cases	28.0%	-	-	2 <sup>nd</sup> highest
Active Cases per 100,000 (age 15+)	361.1	548.5	-2.7%	2 <sup>nd</sup> lowest
Admission per 100,000 (age 15+)	344.9	511.7	-1.3%	2 <sup>nd</sup> lowest
Discharges per 100,000 (age 15+)	347.0	515.2	-1.7%	2 <sup>nd</sup> lowest
<b>SCIPP Categories - % of total active cases</b>				
Short Stay	26.1%	27.4%	-	
Schizophrenia and other psychotic disorders	32.9%	27.0%	-	
Neurocognitive disorders	1.3%	3.1%	-	
Bipolar and depressive disorders	30.6%	29.6%	-	
Personality disorders	1.3%	3.0%	-	
Feeding and eating disorders	-	0.4%	-	
Substance Use disorders	4.7%	5.5%	-	
Other disorders	2.7%	4.0%	-	
<b>LHIN of hospital</b>				
Active cases	2,517	64,738	-3.9%	
Admissions	2,449	60,383	-3.0%	
Discharges	2,466	60,795	-2.4%	
Total Days (discharged patients only)	28,116	1,512,754	1.3%	
Mean Length of Stay	11.4	24.9	-	<b>Lowest</b>
% Inflow Active Cases	21.3%	-	-	

‡Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

## Surgery & Diagnostic Imaging

### Day Surgery and Cardiac Catheterization Utilization

#### Day Surgery and Cardiac Catheterization Visits

- In 2016/17, there were 53,862 day surgery and ambulatory cardiac catheterization visits to Central West LHIN hospitals. Residents from outside the LHIN accounted for 25.7% of the visits.
- Between 2013/14 and 2016/17, there was an increase of 4.2% in Central West LHIN hospital's day surgery and cardiac catheterization visits.
- There were 65,631 day surgery and ambulatory cardiac catheterization visits for Central West LHIN residents. There was a 5.5% increase in visits but the rate of visits was stable.
- In 2016/17, 39.0% of these visits occurred in hospitals outside the LHIN. This is the highest rate of outflow among all LHINs.
- The following sub-regions had among the eight highest outflow rates to other LHINs for all Ontario sub-regions:
  - **North Etobicoke Malton West Woodbridge** had the 2<sup>nd</sup> highest outflow rate.
  - **Bolton-Caledon** had the 4<sup>th</sup> highest outflow rate.
- Central West LHIN residents had 70.2 day surgery and cardiac catheterization visits per 1,000 population. This rate was lower than the provincial rate of 93.9 and the 2<sup>nd</sup> lowest of all LHINs.
- The following sub-regions had among the eight lowest rates of visits per 1,000 population within all sub-regions:
  - **Bramalea** had the 7<sup>th</sup> lowest rate of visits per 1,000 population.
  - **Brampton** had the 5<sup>th</sup> lowest rate of visits per 1,000 population.

#### Day surgery and ambulatory cardiac catheterization visits, Central West LHIN and Ontario, 2016/17

Measure	LHIN	Comments	Ontario†	LHIN % change 2013-14 - 2016/17	Range within LHINs	Range within CW sub-regions
<b>LHIN of hospital</b>						
Visits	53,862		1,322,943	4.2%	27,727 - 158,077	
% Inflow visits	25.7%				0.7% - 58.4%	
<b>LHIN of patient</b>						
Total population	935,164		13,982,984	4.7%	235,148 - 1,893,948	
Visits	65,631		1,313,103	5.5%	28,401 - 157,644	3,442 - 20,467
% Outflow visits	39.0%	Highest			3.0% - 39.0%	28.6% - 54.0%
Visits per 1,000 population	70.2	2 <sup>nd</sup> lowest	93.9	0.5%	66.8 - 151.0	61.9 - 95.5
- age 0-17 years	14.3	2 <sup>nd</sup> lowest	22.2		13.9 - 38.4	
- age 18-44 years	36.4		46.5		34.8 - 85.5	
- age 45-64 years	104.7		125.3		93.9 - 183.0	
- age 65-79 years	213.8		239.9		176.5 - 318.4	
- age 80+ years	188.2		202.7		138.5 - 260.4	

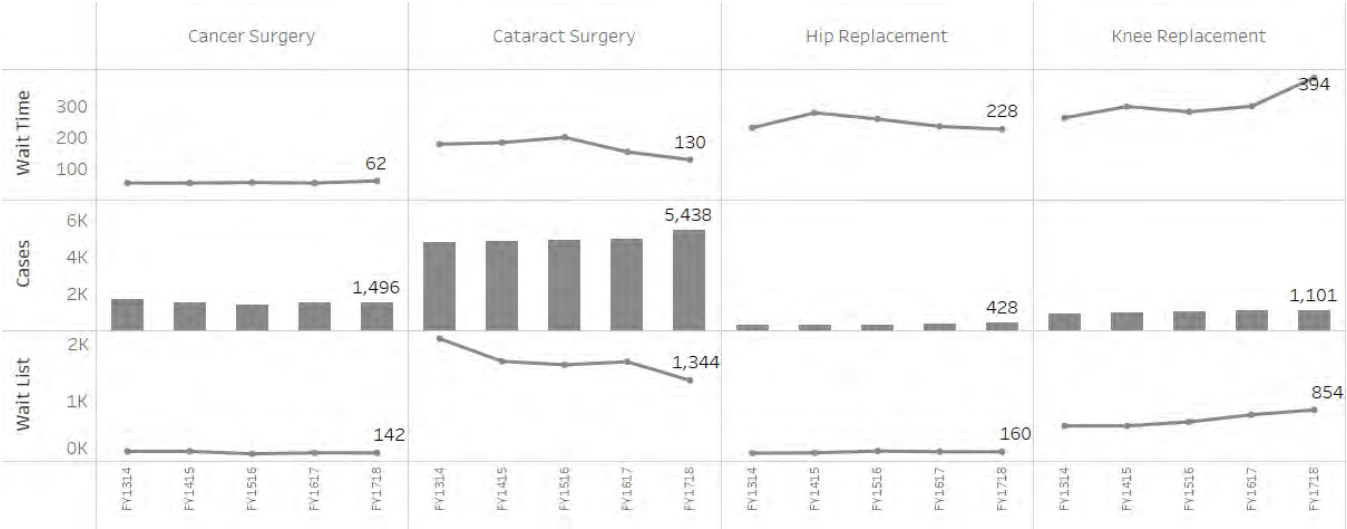
†LHIN of patient results for Ontario exclude out-of-province residents

Surgical & Diagnostic Imaging Wait Times

**\*NOTE: Diagnostic Imaging Scans (Adult CT, Adult MRI, Paediatric CT, Paediatric MRI) Not Reported**

Central West LHIN Priority Procedures:  
Wait 2 90<sup>th</sup> Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

LHIN of Treatment

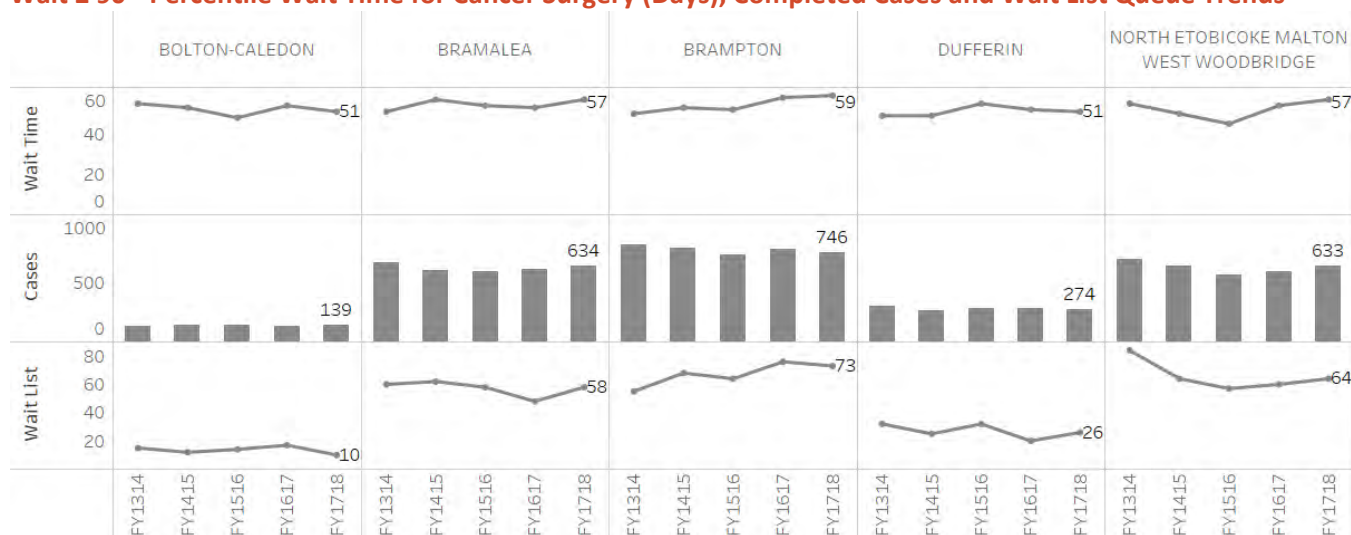


## Cancer Surgery

- There were 1,496 cancer surgeries completed in FY 2017-18; 29 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 62 days, 7 days longer than the previous fiscal.
- In 2017/18, hospitals in the Central West LHIN had the 2<sup>nd</sup> longest wait time for cancer surgery.
- The wait list queue at the start of FY 2017-18 was 142 patients; 2 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Cancer Surgery (Days), Completed Cases and Wait List Queue Trends



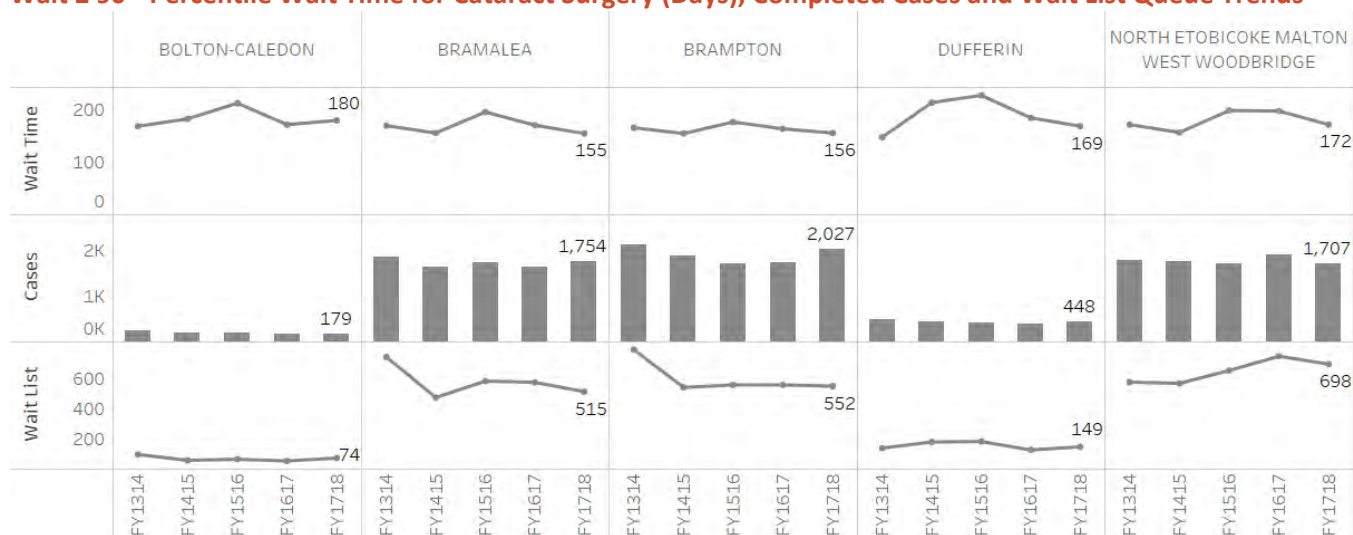
- Central West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 51 days to 59 days.

## Cataract Surgery

- There were 5,438 cataract surgeries completed in FY 2017-18; 467 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 130 days, 25 days shorter than the previous fiscal.
- In 2017/18, hospitals in the Central West LHIN had the 2<sup>nd</sup> shortest wait time for cataract surgery.
- The wait list queue at the start of FY 2017-18 was 1,344 patients; 309 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Cataract Surgery (Days), Completed Cases and Wait List Queue Trends



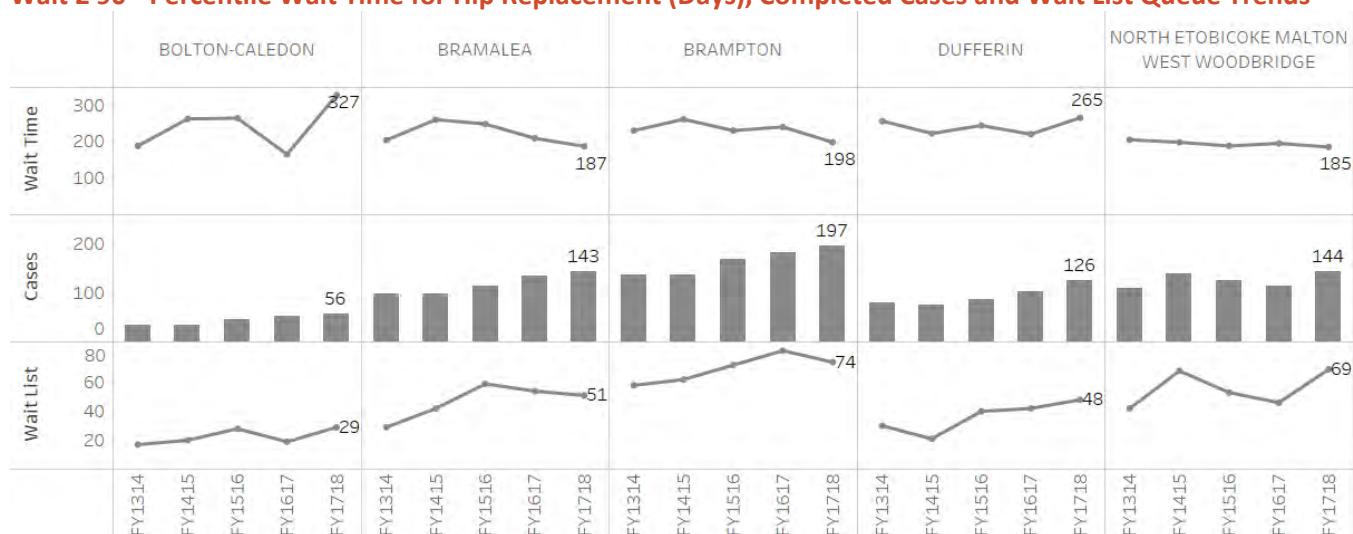
- Central West LHIN sub-region (of Patient Residence) variation in FY 2017-18: 155 days to 180 days.

## Hip Replacement

- There were 428 hip replacement surgeries completed in FY 2017-18; 67 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 228 days, 9 days shorter than the previous fiscal.
- In 2017/18, hospitals in the Central West LHIN had the 6<sup>th</sup> longest wait time for hip replacement surgery.
- The wait list queue at the start of FY 2017-18 was 160 patients; 1 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Hip Replacement (Days), Completed Cases and Wait List Queue Trends



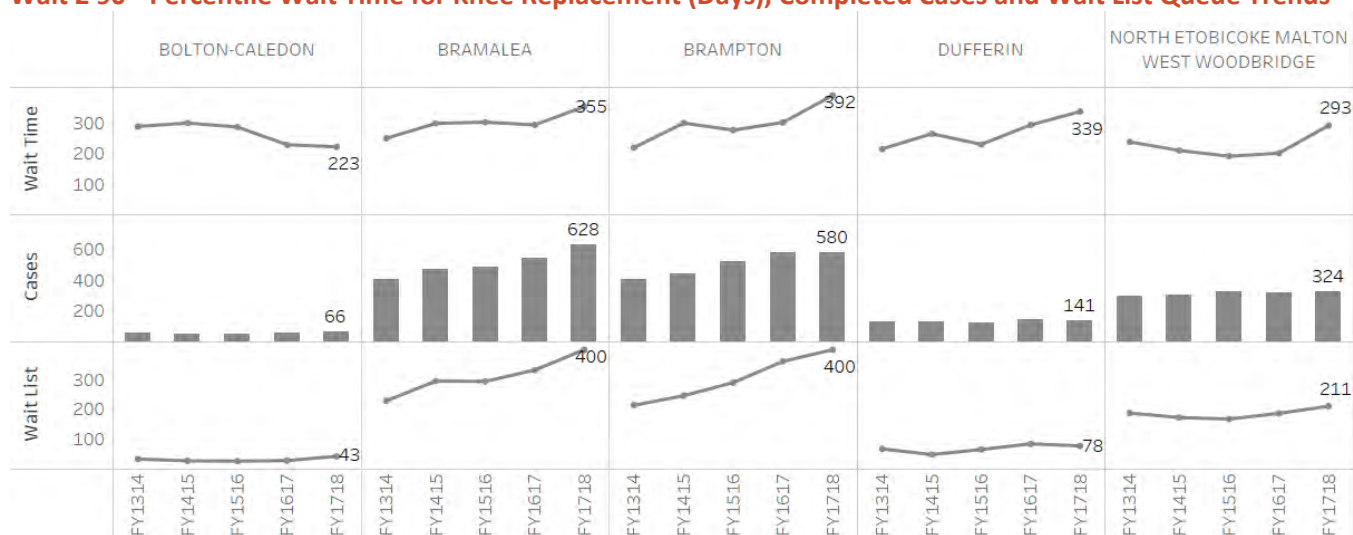
- Central West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 185 days to 327 days.

## Knee Replacement

- There were 1,101 knee replacement surgeries completed in FY 2017-18; 26 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 394 days, 92 days longer than the previous fiscal.
- In 2017/18, hospitals in the Central West LHIN had the 3<sup>rd</sup> longest wait time for knee replacement surgery.
- The wait list queue at the start of FY 2017-18 was 854 patients; 80 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Knee Replacement (Days), Completed Cases and Wait List Queue Trends



- Central West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 223 days to 392 days.

## Oncology and Dialysis

### Ambulatory Oncology Utilization

- In 2016/17, there were 11,708 ambulatory oncology visits to hospital(s) in Central West LHIN.
- Since 2014/15, visits in Ontario have increased by 9%. The number of visits to CW LHIN hospitals increased by 17% and visits for CW LHIN residents increased by 10%.
- In 2016/17, ambulatory oncology visits per 1,000 population for residents of Central West LHIN is 55.3 (Ontario - 75.7). The rate is among the 4 lowest visit rates in the province.
- Oncology visits rates in Central West LHIN were low compared to the other LHINs, across all age groups: 0-17 years (4.0 vs. Ontario - 5.0), 18-44 years (12.4 vs. Ontario - 15.9), 45-64 years (91.7 vs. Ontario - 106.7), 65-79 years (222.8 vs. Ontario - 255.4), and 80+ years (168.1 vs. Ontario - 191.6).
  - **Bolton-Caledon** has one of the 8 highest visits rates in Ontario (20.1 vs Ontario - 15.9) for age group 18-44 years while **Bramalea** has one of the 8 lowest visit rates in Ontario (78.8 vs Ontario - 106.7) for age group 45-64 years.
- 80% of ambulatory oncology visits for Central West LHIN residents were to hospitals outside of Central West LHIN.
  - All sub-regions within the LHIN have a high proportion of visits (>70%) were to other LHINs' hospitals notably, a 90% outflow in **North Etobicoke Malton West Woodbridge** sub-region.
- 12% of ambulatory oncology visits to Central West LHIN hospitals were by non-Central West LHIN residents.

Ambulatory Oncology	Central West	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory oncology visits	11,708	1,059,358	Lowest	Increase	
% Inflow oncology visits	12.2%				
<b>LHIN of patient</b>					
Ambulatory oncology visits	51,751	1,057,888		Increase	591 -16,760
% Outflow oncology visits	80.1%				
Visits per 1,000 population	55.3	75.7	Lowest	Increase	46.8 -75.3
Visit rate/1,000 population age 0-17 years	4.0	5.0	3 <sup>rd</sup> lowest		2.8 -4.6
Visit rate/1,000 population age 18-44 years	12.4	15.9	2 <sup>nd</sup> lowest		10.8 -20.1
Visit rate/1,000 population age 45-64 years	91.7	106.7	Lowest		78.8 -112.9
Visit rate/1,000 population age 65-79 years	222.8	255.4	Lowest		199.2 -277.8
Visit rate/1,000 population age 80+ years	168.1	191.6	2 <sup>nd</sup> lowest		156.4 -219.9



Ambulatory Oncology - Sub-Region	Central West	North Etobicoke Malton West Woodbridge	Dufferin	Bolton-Caledon	Bramalea	Brampton	Central West LHIN, SR unassigned
<b>LHIN of hospital</b>							
Ambulatory oncology visits	11,708						
% Inflow oncology visits	12.2%						
<b>LHIN of patient</b>							
Ambulatory oncology visits~	51,751	13,078	5,913	2,696	12,713	16,760	591
% Outflow oncology visits	80.1%	90%	78.1%	78.0%	71.9%	79.0%	99%
Visits per 1,000 population	55.3	61.7	75.3	63.7	46.8	50.7	
Visit rate/1,000 population age 0-17 years	4.0	4.5	4.6	2.8	3.7	3.7	
Visit rate/1,000 population age 18-44 years	12.4	12.8	11.0	20.1	10.8	12.2	
Visit rate/1,000 population age 45-64 years	91.7	88.1	112.9	92.2	78.8	94.7	
Visit rate/1,000 population age 65-79 years	222.8	238.6	277.8	199.2	210.0	204.7	
Visit rate/1,000 population age 80+ years	168.1	169.9	182.5	219.9	156.4	156.7	

### Ambulatory Dialysis Utilization

- In 2016/17, there were 62,296 ambulatory dialysis visits to hospital(s) in Central West LHIN.
- Since 2014/15, visits in Ontario have increased by 3%. The number of visits to CW LHIN hospitals is relatively unchanged and visits for LHIN residents increased by 1%.
- The rate of ambulatory dialysis visits per 1,000 population for residents of Central West LHIN is 100.9 (Ontario - 90.4).
- Dialysis visits per 1,000 population for three age groups in Central West LHIN are among the 4 highest rates in the province: age group 45-64 years is 133.4 (Ontario - 105.3); age group 65-79 years is 424.5 (Ontario - 285.3) ; age group 80+ years is 634.8 (Ontario - 426.7).
- Notable Central West LHIN sub-regions having one 8 lowest visit rates in Ontario were seen in:
  - Age group 18-44 years, **Dufferin** (5.9 vs. Ontario - 21.8)
  - Age group 45-64 years, **Dufferin** (39.4) and **Bolton-Caledon** (38.4) (Ontario - 105.3)
  - Age group 65-79 years, **Bolton-Caledon** (80.0 vs Ontario - 285.3)
- Notable Central West LHIN sub-regions having one 8 highest visit rates in Ontario were seen in:
  - Age groups 45-64 years, **North Etobicoke Malton West Woodbridge** (180.8 vs. Ontario - 105.3).
  - Age group 65-79 years, **North Etobicoke Malton West Woodbridge** (497.6) and **Bramalea** (522.6) (Ontario - 285.3).
  - Age group 80+ years, **North Etobicoke Malton West Woodbridge** (655.0), **Bramalea** (755.5), and **Brampton** (653.8) (Ontario - 426.7).
- 37% of ambulatory dialysis visits by Central West LHIN residents were to hospitals outside of Central West LHIN. Of note, **North Etobicoke Malton West Woodbridge** sub-region has a high proportion of outflow visits to Central LHIN hospitals.

- 4% of ambulatory dialysis visits to Central West LHIN hospitals were by non-Central West LHIN residents.

*Note: Ambulatory dialysis visit volumes for residents in age group 0-17 are low to none across all sub-regions. Caution should be used when interpreting visit rates in this age group.*

Ambulatory Dialysis	Central West	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory dialysis visits	62,296	1,269,794		Stable	
% Inflow dialysis visits	4.3%				
<b>LHIN of patient</b>					
Ambulatory dialysis visits	94,387	1,264,676		Stable	769 -31,489
% Outflow dialysis visits	36.8%				
Visits per 1,000 population	100.9	90.4		Stable	32.1 -136.0
Visit rate/1,000 population age 0-17 years	1.1	1.2			0.0 -1.7
Visit rate/1,000 population age 18-44 years	21.0	21.8			5.9 -25.3
Visit rate/1,000 population age 45-64 years	133.4	105.3	2 <sup>nd</sup> highest		38.4 -180.8
Visit rate/1,000 population age 65-79 years	424.5	285.3	Highest		80.0 -522.6
Visit rate/1,000 population age 80+ years	634.8	426.7	Highest		257.4 -755.5

Ambulatory Dialysis - Sub-Region	Central West	North Etobicoke Malton West Woodbridge	Dufferin	Bolton-Caledon	Bramalea	Brampton	Central West LHIN, SR unassigned
<b>LHIN of hospital</b>							
Ambulatory dialysis visits	62,296						
% Inflow dialysis visits	4.3%						
<b>LHIN of patient</b>							
Ambulatory dialysis visits~	94,387	28,806	3,657	1,357	28,309	31,489	769
% Outflow dialysis visits	36.8%	72.4%	14.7%	15.1%	15.3%	26.5%	61.6%
Visits per 1,000 population	100.9	136.0	46.6	32.1	104.1	95.2	
Visit rate/1,000 population age 0-17 years	1.1	1.7	0.0	0.0	1.4	0.9	
Visit rate/1,000 population age 18-44 years	21.0	19.2	5.9	12.5	22.0	25.3	
Visit rate/1,000 population age 45-64 years	133.4	180.8	39.4	38.4	132.3	142.2	
Visit rate/1,000 population age 65-79 years	424.5	497.6	186.8	80.0	522.6	393.7	
Visit rate/1,000 population age 80+ years	634.8	655.0	365.7	257.4	755.5	653.8	

*\*Ranking: Top or Bottom 4 ranking in the province, compared to other LHINs.*

*^ Trend: "Increase/decrease" when there is a change more than 1%, otherwise, "stable"*

*~ There are some records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables with the LHIN name but as SR unassigned.*

## Home Care

### Home Care Patient Referrals

- In 2017/18, there were 35,084 active home care patient referrals in the Central West LHIN.
  - The **Brampton** sub-region had the largest proportion of Central West LHIN patient referrals at 11,432.
- Across Ontario's sub-regions, Bolton Caledon had the fifth lowest number of active patient referrals with 1,389.

### Active Patient Referrals 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
<b>Bolton Caledon</b>	1,397	1,380	1,389	5 <sup>th</sup> lowest
<b>Bramalea</b>	8,170	8,803	9,081	
<b>Brampton</b>	10,484	10,983	11,432	
<b>Dufferin</b>	3,058	3,108	3,123	
<b>North Etobicoke, Malton, West Woodbridge</b>	7,365	7,695	8,024	
<b>Out of LHIN Region</b>	624	680	764	
<b>Unknown Region</b>	1,870	1,772	1,271	
<b>CW Total</b>	32,968	34,421	35,084	

\*Rank based on 2017/18 active patient referrals

### Home Care Referral Rate

- In 2017/18, Central West LHIN's utilization rate was the **lowest** in the province at 36.6 referrals per 1,000 (compared to 48.2 for Ontario).
  - Within the LHIN, the utilization rate ranged from 32.8 referrals per 1,000 in Bolton Caledon to 39.8 in **Dufferin**.
  - Across Ontario's sub-regions, the utilization rates for Bolton Caledon (32.8), **Bramalea** (33.4) and **Brampton** (34.6) were the sixth, seventh and eighth lowest rates in the province.

### Referrals (per 1,000 population) 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
<b>Bolton Caledon</b>	33.7	32.6	32.8	6 <sup>th</sup> lowest
<b>Bramalea</b>	30.7	32.4	33.4	7 <sup>th</sup> lowest
<b>Brampton</b>	32.4	33.2	34.6	8 <sup>th</sup> lowest
<b>Dufferin</b>	40.2	39.6	39.8	
<b>North Etobicoke, Malton, West Woodbridge</b>	35.0	36.3	37.9	
<b>CW Total</b>	35.9	36.8	36.6	

\*Rank based on 2017/18 utilization rates

### Home Care Services

- In Central West LHIN, there were 518,119 home care visits and 1,618,073 service hours in 2017/18.
- The rate of home care visits was 540.6 per 1,000 population and the rate of service hours was 1,688.4 per 1,000 population.
- Central West had the 2<sup>nd</sup> lowest nursing visits per 1,000 population, lowest case management visits per 1,000 population and lowest personal support hours per 1,000 population.
- The following sub-regions had among the eight lowest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - **North Etobicoke Malton West Woodbridge** had the 6<sup>th</sup> lowest rate of case management visits.
  - **Dufferin** had the 5<sup>th</sup> lowest rate of personal support hours.
  - **Dufferin** had the 5<sup>th</sup> lowest rate of total hours.
  - **Dufferin** had the 7<sup>th</sup> lowest rate of nutrition visits.
  - **Bolton-Caledon** had the 3<sup>rd</sup> lowest rate of nursing shift hours.
  - **Bolton-Caledon** had the 4<sup>th</sup> lowest rate of personal support hours.
  - **Bolton-Caledon** had the 4<sup>th</sup> lowest rate of total hours.
  - **Bolton-Caledon** had the 4<sup>th</sup> lowest rate of case management visits.
  - **Bolton-Caledon** had the 4<sup>th</sup> lowest rate of nursing visits.
  - **Bolton-Caledon** had the 6<sup>th</sup> lowest rate of nutrition visits.
  - **Bolton-Caledon** had the 2<sup>nd</sup> lowest rate of occupational therapy visits.
  - **Bolton-Caledon** had the 3<sup>rd</sup> lowest rate of total visits rate.
  - **Bramalea** had the 7<sup>th</sup> lowest rate of personal support hours.
  - **Bramalea** had the 8<sup>th</sup> lowest rate of total hours.
  - **Bramalea** had the 2<sup>nd</sup> lowest rate of case management visits.
  - **Bramalea** had the 5<sup>th</sup> lowest rate of nursing visits.
  - **Bramalea** had the 4<sup>th</sup> lowest rate of total visits rate.
  - **Brampton** had the 6<sup>th</sup> lowest rate of personal support hours.
  - **Brampton** had the 7<sup>th</sup> lowest rate of total hours.
  - **Brampton** had the 3<sup>rd</sup> lowest rate of case management visits.
- Between 2014/15 and 2017/18 there was an increase in total visits of 26.5% and an increase in total hours of 17.8% in Central West LHIN. During this period nursing visits increased by 27.1%, occupational health visits increased by 85.4%, case management visits increased by 32.2%, nursing shift hours increased by 45.8% and personal support hours increased by 12.7%.
- Between 2014/15 and 2017/18 nursing visits rate increased by 20.1%, occupational health visit rate increased by 75.2%, case management visit rate increased by 24.9% and nursing shift hours rate increased by 37.8%.

## Summary of Home Care Service by Type, Central West LHIN, 2017/18

	Central West LHIN Residents	Ontario Residents*	Comments	LHIN % Change 2014/15 to 2017/18	Range across CW sub-regions**
<b>Service Visits</b>					
<b>All Visits†</b>	518,119	11,528,751		26.5%	17,747-174,847
Nursing Visit	341,326	7,539,458		27.1%	11,417-120,635
Physiotherapy	46,292	738,685		0.5%	1,865-14,222
Occupational Therapy	39,722	615,215		85.4%	615-10,771
Social Work	1,657	56,973		20.4%	94-551
Nutrition and Dietetic	2,012	47,949		36.5%	41-736
Speech Language Pathology	17,478	273,735		-0.7%	600-7,032
Case Management	69,330	2,211,107		32.2%	3,107-20,812
<b>Service Hours</b>					
<b>All Hours</b>	1,618,073	34,396,919		17.8%	53,109-534,982
Nursing Shift	149,101	2,366,020		45.8%	1,170-58,093
Personal Support Work and Homemaking	1,423,960	31,319,568		12.7%	50,681-488,708
Respite	45,012	711,331		n/a	1,258-19,635
<b>Service Visits per 1,000 population</b>					
<b>All Visits per 1,000 population †</b>	540.6	810.2	Lowest	19.5%	419.3-701.9
Nursing Visit	356.2	529.8	2 <sup>nd</sup> lowest	20.1%	269.7-462.4
Physiotherapy	48.3	51.9		-5.0%	40.2-75.1
Occupational Therapy	41.4	43.2		75.2%	14.5-40.3
Social Work	1.7	4.0		13.8%	1.4-2.2
Nutrition and Dietetic	2.1	3.4		29.0%	1.0-2.8
Speech Language Pathology	18.2	19.2		-6.1%	14.2-21.3
Case Management	72.3	155.4	Lowest	24.9%	61.2-110.7
<b>Service Hours per 1,000 population</b>					
<b>All Hours</b>	1,688.4	2,417.3	Lowest	11.3%	1,254.7-2,525.6
Nursing Shift	155.6	166.3		37.8%	27.6-190.0
Personal Support Work and Homemaking	1,485.8	2,201.0	Lowest	6.5%	1,197.3-2,307.1
Respite	47.0	50.0		n/a	24.6-92.7

\*Not all LHINs offer the same services or report case management services in the same manner.

\*\*Service rates per 1,000 population are calculated using 2017/18 service levels divided by 2016 population estimates from the Ministry of Finance. Typically 2017 population estimates would be used but they were not available at the sub-region level at time of calculation.

†Includes visits for respiratory, psychology, and 'other' service types (not shown), which are not consistently reported/available in all LHINs.

n/a – not applicable due to significant changes in funding and recording

## Palliative Care

### Services Received at Home by Palliative Patients FY 2016/2017

	Provincial Ranking	LHIN	Range Across CW sub-regions
Percent of patients who received palliative home visits(home servicers or physician) in the last 90 days of life	7	36%	35% to 43%
Percent of patients who received palliative home servicers in the last 90 days of life	8	26%	24% to 37%
Percent of patients who had physician home visits in the last 90 days of life	9	30%	29% to 37%
Percent of patients who receive palliative home services who died in hospital	11	26%	20% to 28%
Percent of palliative care patients discharged home from hospital with the discharge status "Home with Support"	12	89%	87% to 96%
Mean days spent at home/residence in last 6 months of life	9	161 days	158 to 163 days

*†Ranking in the province, compared to other LHINs.*

### Interpretation

- In 2016/2017, 36% of patients in Central West LHIN received palliative home visits in the last 90 days of life, which matches the provincial value.
  - Within the Central West LHIN, three sub-regions reported 35% palliative home visits in the last 90 days of life: **North Etobicoke Malton West Woodbridge**, **Bramalea**, and **Brampton**. **Bolton-Caledon** sub-region had the highest percentage at 43%.
- In 2016/2017, the percent of patients in Central West LHIN who received palliative home servicer visits in the last 90 days of life was marginally higher than the province (26% vs 25%, respectively).
  - Within the Central West LHIN, **North Etobicoke Malton West Woodbridge** and **Bramalea** sub-regions each reported that 24% or more of patients received home servicer visits in the last 90 days of life.
- In the Central West LHIN, the percentage of patients who received physician home visits in the last 90 days of life was 29%, slightly higher than the provincial percentage (28%).
  - **Bolton-Caledon** sub-region reported the highest percentage at 37%.
- Across Ontario, Central West LHIN reported that 26% of patients who received palliative home services who died in hospital, which is marginally higher than the provincial percentage of 25%.
- There is notable variation of percentages of patients who received palliative care who died in hospital across Central West sub-regions.
  - The **Dufferin** sub-region has the lowest percentage of palliative patients dying in hospital at 20% and **North Etobicoke Malton West Woodbridge** reports 28% for the 2016/2017 fiscal year.
- Across LHINs, Central West reports that 89% of palliative care patients discharged home with "Home with Supports" status in 2016/2017, the third highest rate in Ontario.
  - Within Central West, the sub-regions vary from 87% in **North Etobicoke Malton West Woodbridge** and **Bramalea** to 96% in **Dufferin** regarding palliative patients discharged with "Home with Supports" status.
- Central West LHIN's mean number of days at home among palliative patients in the last 6 months across all LHINs was 161 days, which is slightly higher than the provincial value.
  - Central West sub-regions are close in mean number of days that palliative patients spend at home in their last 6 months, ranging from 158 days in **North Etobicoke Malton West Woodbridge** to 163 days in **Dufferin** and **Bramalea**.

## Palliative Hospital System Measures, Central West (FY 2016/17)

	Provincial Ranking	LHIN	Range Across the sub-regions
Percent of patients who had one or more unplanned ED visits in the last 30 days of life	12	58%	55% - 60%
Percent of patients who had two or more unplanned ED visits in the last 30 days of life	8	15%	13% - 20%
Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days	12	26%	13% - 31%
Percent of people who die in hospital (all hospital settings and acute only)	8	53%	46% - 58%
Percent of people who die in acute hospital	14	50%	42% - 54%
Percent of patients who had two or more acute inpatient admissions in the last 30 days of life	14	6%	6% - 8%

### LHIN Comparison

- The Central West LHIN was **significantly higher** than the province in the following indicators:
  - Percent of patients who had one or more unplanned ED visits in the last 30 days of life
  - Percent of patients discharged from hospital who visited ED at least once within 30 days
  - Percent of people who died in acute hospital
  - Percent of patients who had two or more acute inpatient admissions in the last 30 days of life
    - For percent of patients who had one or more unplanned ED visits in the last 30 days of life, **North Etobicoke Malton West Woodbridge** and **Bramalea** sub-regions were higher than the province.
    - For percent of patients who had two or more unplanned ED visits in the last 30 days of life, **Dufferin** was **significantly higher** than the province.
    - For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, **Brampton** sub-region was **significantly higher** than the province.
    - For percent of people who died in hospital (all hospital settings and acute only), **Dufferin** sub-region was **significantly lower** than the province. **North Etobicoke Malton West Woodbridge** was **significantly higher**.
    - For percent of people who died in acute hospital, the following sub-regions were **significantly higher** than the province: **North Etobicoke Malton West Woodbridge**, **Bramalea**, and **Brampton**.
    - For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, **Bramalea** was **significantly higher** than the province.



### Change Over Time

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of -1% was observed across the Central West LHIN ranking 10<sup>th</sup> provincially.
  - Across sub-regions, **Bolton-Caledon** (1%) and **Bramalea** (-2%) were observed highest and lowest, respectively.
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of 0% was observed across the Central West LHIN ranking 7<sup>th</sup> provincially.
  - Across sub-regions, **Dufferin** (5%) and **Bolton-Caledon** (-8%) were observed highest and lowest, respectively.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, a mean annual growth rate of 0% was observed across the Central West LHIN ranking 7<sup>th</sup> provincially.
  - Across sub-regions, **Brampton** (8%) and **Bolton-Caledon** (-21%) were observed highest and lowest, respectively.
- For percent of people who die in hospital (all hospital settings and acute only), a mean annual growth rate of -3% was observed across the Central West LHIN ranking 11<sup>th</sup> provincially.
  - Across sub-regions, **Dufferin** (1%) and **Bolton-Caledon** (-3%) were observed highest and lowest, respectively.
- For percent of people who die in acute hospital, a mean annual growth rate of -3% was observed across the Central West LHIN ranking 12<sup>th</sup> provincially.
  - Across sub-regions, **Dufferin** (2%) and **Bolton-Caledon** (-4%) were observed highest and lowest, respectively.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, a mean annual growth rate of -3% was observed across the Central West LHIN ranking 13<sup>th</sup> provincially.
  - Across sub-regions, **Brampton** (4%) and **Bolton-Caledon** (-15%) were observed highest and lowest, respectively.

## Emergency Department

### Emergency Department Utilization

- In 2016/17, there were 268,255 ED visits to Central West LHIN hospitals, an increase of 9.5% from 2013/14. In the same time-period, the number of ED visits in the province increased by 6.5%.
- Central West's crude ED visit rate of 340.1 ED visits per 1,000 population was 11<sup>th</sup> highest in the province, well below the provincial rate (442.2). This represented a 5.9% increase in crude visit rate in the LHIN from 2013/14 during which time the provincial crude visit rate climbed by 3.0%.
- Age adjusted ED visit rates per 1,000 population were highest for seniors 80+ at 787 visits per 1,000 population, followed by seniors aged 65-79 (436 visits / 1,000 population), adults aged 45-64 years (321 visits per 1,000 population), children aged 0-17 (317 visits per 1,000 population) while adults aged 18-44 years had the lowest usage rate in LHIN at 311 visits per 1,000 population, or less than 40% of the highest user age group.
  - **Bolton-Caledon** residents had the lowest ED visit rate of Central West's 5 sub-regions, at 286 visits per 1000 population.
  - **Dufferin** sub-region had the highest crude ED visit rate in the LHIN at 476 visits per 1,000 population.
  - Overall, 4 of Central West's 5 sub-regions had crude ED visit rates below the provincial value, while 1 had rates above the provincial value.
- Between 2013/14 and 2016/17 the number of Central West LHIN residents visiting the ED with lower acuity levels (CTAS IV and V) decreased 3.2% to 64,156 visits. During this same time-period, visits by Ontario residents with CTAS IV and V declined 2.2%.
- Between 2013/14 and 2016/17 the number of visits with CTAS III increased by 9.5% and CTAS I & II increased by 28.5%, while provincially these numbers increased by 9.4% and 15.8% respectively.
- Overall, Central West LHIN ranked lowest in the province in proportion of ED visits by residents that were lower acuity (20.2% for Central West, and 33.5% for the province).
  - 4 out of 5 of Central West's sub-regions had a lower proportion of ED visits with lower acuity (CTAS IV and V) than the province.
  - **Bramalea** had the lowest proportion of ED visits with lower acuity of the LHIN's 5 sub-regions, at 16.9%, while **Dufferin** had the highest at 34.6%.
- The most common causes for ED visits by Central West LHIN residents were diseases or disorders of the digestive system, other diseases or disorders of the cardiac system, and diseases or disorders of the ear, nose or throat and accounted for 11.5%, 7.2%, and 6.4% of ED visits by Central West LHIN residents respectively.
- Follow-up examinations and other non-emergent conditions ranked 9<sup>th</sup> as a cause of ED visits and accounted for 4.3% of ED visits by Central West LHIN residents.
- 19.7% of the patients who visited ED in Central West LHIN hospitals arrived via ambulance in FY16/17, as compared to 15.6% for the province.
  - The proportion of ED visits that arrived by ambulance ranged from a low of 12.7% in **Dufferin** sub-region to a high of 18.7% in **North Etobicoke Malton West Woodbridge**.
- 12.1% of the patients who visited ED in Central West LHIN hospitals were admitted in FY16/17, as compared to 9.8% for the province.
  - The proportion of ED visits that resulted in a patient being admitted to hospital ranged from a low of 8.6% in **Dufferin** sub-region to a high of 13.8% in **North Etobicoke Malton West Woodbridge**.
- 2.8% of the patients who visited ED in Central West LHIN hospitals left without completing treatment in FY16/17, as compared to 3.9% for the province. Central West ranked 13<sup>th</sup> in the province in visits that left without completing treatment.

- 15.6% of ED visits to Central West LHIN hospitals were by patients who did not reside in Central West LHIN (inflow). This compares to 28.8% of ED visits by Central West LHIN residents that were accessed in other LHINs (outflow).

#### Top 10 Reasons for Emergency Department Visits by LHIN, 2016/17

Leading CACS groups, by LHIN of patient	Central West	
	#	% of total visits
(B128) Disease or Disorder Digestive System	36,671	11.5%
(B122) Other Disease or Disorder Cardiac System	22,778	7.2%
(B112) Disease or Disorder Ear, Nose or Throat	20,249	6.4%
(B136) Disease or Disorder Musculoskeletal and Connective Tissue	19,874	6.2%
(B132) Disease or Disorder Skin & Breast	19,191	6.0%
(B180) Contusion, Dislocation, Nerve & Other Soft Tissue Injury	18,967	6.0%
(B005) Other Condition with Acute Admission/Transfer	17,283	5.4%
(B116) Disease or Disorder Respiratory System	13,913	4.4%
(B187) Follow-up Examination and Other Non Emergent Condition	13,827	4.3%
(B188) Open Wound and Vascular Injury	11,608	3.7%

Measure—LHIN of Hospital	Central West		Ontario	
	#	LHIN % change 2013/14- 2016/17	#	Ontario % change 2013/14- 2016/17
Visits	268,255	9.5%	6,312,121	6.5%
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	82,519	29.8%	1,284,741	15.9%
III (urgent)	138,958	5.6%	2,876,687	9.6%
IV & V (less urgent/non urgent)	46,773	-6.1%	2,128,914	-2.0%
<b>% visits by CTAS level†</b>				
I & II (resuscitation/emergent)	30.8%		20.4%	
III (urgent)	51.8%		45.6%	
IV & V (less urgent/non urgent)	17.4%		33.7%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	19.7%		15.6%	
% of visits that were admitted	12.1%		9.8%	
% of visits that left without completing treatment	2.8%		3.9%	
<b>% Inflow visits</b>	15.6%			

Measure—LHIN of Patient	Central West		Ontario	
	#	LHIN % change 2013/14- 2016/17	#	Ontario % change 2013/14- 2016/17
Visits	318,013	11.2%	6,183,151	6.4%
ED visit rate/1,000 population	340.1	5.9%	442.2	3.0%
<b>Age-specific ED visit rates per 1,000 population</b>				
ED visit rate, age 0-17 years	317		429	
ED visit rate, age 18-44 years	311		411	
ED visit rate, age 45-64 years	321		388	
ED visit rate, age 65-79 years	436		516	
ED visit rate, age 80+ years	787		913	
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	91,088	28.5%	1,265,237	15.8%
III (urgent)	162,664	9.5%	2,825,385	9.4%
IV & V (less urgent/non urgent)	64,156	-3.2%	2,070,962	-2.2%
<b>% visits by CTAS level</b>				
I & II (resuscitation/emergent)	28.6%		20.5%	
III (urgent)	51.2%		45.7%	
IV & V (less urgent/non urgent)	20.2%		33.5%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	16.4%		15.8%	
% of visits that were admitted	11.2%		9.9%	
% of visits that left without completing treatment	2.9%		3.8%	
% Outflow visits	28.8%			

**ED Visit Utilization Summary, by sub-region of Patient Residence, 2016/17**      **Central West LHIN**

	North Etobicoke Malton West Woodbridge	Dufferin	Bolton- Caledon	Bramalea	Brampton	LHIN	Ontario
<b>Sub-Region of Patient Residence</b>							
Visits	75,378	37,391	12,097	87,840	102,071	318,013	6,183,151
ED visit rate/1,000 population	356	476	286	323	309	340.1	442
% Outflow to other LHINs	37.2%	19.6%	27.0%	18.7%	34.4%	28.8%	
<b>Age-specific ED visit rates per 1,000 population</b>							
ED visit rate, age 0-17 years	337	484	288	297	283	317	429
ED visit rate, age 18-44 years	305	460	274	300	288	311	411
ED visit rate, age 45-64 years	327	404	242	318	298	321	388
ED visit rate, age 65-79 years	477	537	324	413	401	436	516
ED visit rate, age 80+ years	807	1045	723	760	694	787	913
<b># visits by CTAS level</b>							
# CTAS Level I & II visits	20101	6564	2735	28562	32245	91,088	12715
# CTAS Level III visits	42229	17890	6000	44386	50565	162,664	20741
# CTAS Level IV & V visits	13020	12924	3354	14875	19224	64,156	13353
<b>% visits by CTAS level</b>							
I & II (resuscitation/emergent)	26.7%	17.6%	22.6%	32.5%	31.6%	28.6%	20.5%
III (urgent)	56.0%	47.8%	49.6%	50.5%	49.5%	51.2%	45.7%
IV & V (less urgent/non urgent)	17.3%	34.6%	27.7%	16.9%	18.8%	20.2%	33.5%
<b>Other visit characteristics</b>							
% of visits that arrived by ambulance	18.7%	12.7%	13.6%	15.4%	17.2%	16.4%	15.8%
% of visits that were admitted	13.8%	8.6%	9.7%	10.8%	11.0%	11.2%	9.9%
% of visits that left without completing treatment	2.4%	3.0%	2.8%	2.8%	2.9%	2.9%	3.8%

### Emergency Department Performance

- ED Volumes in Central West LHIN increased from fiscal year 2013/14 (244,979) to 2017/18 (322,844).
- ED volumes for Non-Admitted Low Acuity visits increased since fiscal year 2013/14 to 63,208 in fiscal year 2017/18, and for non-Admitted High Acuity visits from 164,780 in fiscal year 2013/14 to 227,345 in 2017/18.
- Admitted ED Volumes had slightly increased from fiscal year 2013/14 (30,896) to 2017/18 (32,282).
- Time to PIA - 90th percentile decreased from fiscal year 2013/14 (four hours) to 2017/18 (two hours).
- ED LOS for Admitted - 90th Percentile increased since fiscal year 2013/14 to 48 hours in fiscal year 2017/18
- Time to Inpatient Bed - 90th Percentile increased since fiscal year 2013/14 to 40 hours in fiscal year 2017/18
- In fiscal year 2017/18, Central West LHIN was the **highest** ranked LHIN for both % with Time to PIA within 2 hours (85%) and % Within Target of 4 Hrs - Non-Admitted Low Acuity (93%).
- Central West LHIN had the **lowest** Time to Disposition for Non-Admitted Low Acuity - 90th Percentile (four hours) and Time to PIA - 90th percentile (two hours) of the 14 LHINs in fiscal year 2017/18.

## Emergency department visits, Central West LHIN

Measure	Fiscal Year					Range across sites, FY 17/18
	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	
<b>All emergency department visits</b>						
ED Volumes (All)	244,979	254,006	256,457	266,564	322,844	43,728 - 135,143
Ambulance Offload Time - 90th Percentile (mins)	31	27	29	32	34	21 - 36
Time to PIA - 90th percentile	4	3	3	3	2	1 - 3
% with Time to PIA <= 2 Hours	72%	71%	73%	76%	85%	74% - 99%
Consult Request to Arrival - 90th Percentile	3	3	3	3	2	1 - 3
% of Consults with Consult Request to Arrival <= 2 Hrs	82%	85%	86%	84%	91%	87% - 98%
Time to Disposition (All) - 90th Percentile	7	7	7	7	7	4 - 8
ED LOS - 90th Percentile	9	9	9	10	8	4 - 11
<b>Non-admitted low acuity ED visits</b>						
ED Volumes - Non-Admitted Low Acuity	49,303	47,693	44,248	46,390	63,208	10,046 - 20,876
% Within Target of 4 Hrs - Non-Admitted Low Acuity	93%	93%	93%	91%	93%	88% - 96%
Time to Disposition for Non-Admitted Low Acuity - 90th Percentile	3	3	4	4	4	3 - 4
ED LOS for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	4	3 - 4
<b>Non-admitted high acuity ED visits</b>						
ED Volumes - Non-Admitted High Acuity	164,780	174,476	180,425	188,381	227,345	25,363 - 100,822
% Within Target of 8 Hrs - Non-Admitted High Acuity	93%	93%	93%	93%	95%	93% - 99%
Time to Disposition for Non-Admitted High Acuity - 90th Percentile	7	7	7	7	6	5 - 7
ED LOS for Non-Admitted High Acuity - 90th Percentile	7	7	7	7	7	5 - 7
<b>Admitted ED visits</b>						
ED Volumes - Admitted	30,896	31,836	31,777	31,788	32,282	4 - 17,076
Admission Rate - CTAS 1	65%	64%	61%	59%	60%	0% - 64%
Admission Rate - CTAS 2	26%	25%	24%	23%	21%	0% - 28%
Admission Rate - CTAS 3	10%	9%	8%	8%	7%	0% - 10%
Admission Rate - CTAS 4	1%	1%	1%	1%	1%	0% - 1%
Admission Rate - CTAS 5	1%	0%	1%	0%	0%	0% - 2%
Time to Disposition for Admitted - 90th Percentile	10	10	10	11	10	8 - 11
ED LOS for Admitted - 90th Percentile	32	35	35	46	48	12 - 50
% Within Target of 8 Hrs - Admitted	39%	36%	36%	31%	31%	24% - 70%
Time to Inpatient Bed - 90th Percentile	24	27	28	39	40	5 - 42



## Acute Care

### Acute Care Utilization by Residents of the Central West LHIN

#### Acute Separations

- In 2016/17, there were 63,173 acute separations (discharges), 305,905 acute days, and 331,821 total days (including acute and alternate level of care days) for Central West LHIN residents.
  - The acute separation rate for Central West LHIN residents was 68 separations per 1,000 residents in 2016/17 but varied substantially by sub-region of patient residence.
- Rates were the lowest for residents of the **Bolton-Caledon** sub-region and highest for residents of North Etobicoke, Malton West Woodbridge.
- From 2013/14 to 2016/17, the overall acute separation rate for Central West LHIN residents increased by 0.8%.
  - **Bolton-Caledon** sub-region was ranked in the lowest 8 among Ontario sub-regions for the rate of acute separations per 1,000 residents, with a rate well below Ontario.
  - **Bolton-Caledon** had the 2<sup>nd</sup> lowest volume of separations by sub-region of patient (2,210).

#### Acute Days

- The rate of acute days for Central West LHIN residents was 327 acute days per 1,000 residents in 2016/17. Rates were lowest for residents of the **Bolton-Caledon** sub-region (247) and highest for North Etobicoke, Malton West Woodbridge (415) in 2016/17.
  - Residents of the **Bolton-Caledon**, **Bramalea**, and **Brampton** sub-regions were among the lowest ranking Ontario sub-regions for the rate of acute days per 1,000 residents – with values well below Ontario.

#### Length of Stay

- The mean total length of stay (including acute days and days waiting for an alternate level of care) for Central West LHIN residents was 5.3 days, while the mean acute length of stay was 4.8 days in 2016/17. These values, compared across Ontario's LHINs, were the lowest and 2<sup>nd</sup> lowest respectively.
  - Among sub-regions, residents of the **Dufferin** sub-region were ranked among the lowest 8 Ontario sub-regions for mean acute length of stay – with values below Ontario.
  - Four Central West LHIN sub-regions were ranked among the bottom Ontario sub-regions for mean total length of stay: **Dufferin**, **Bramalea**, **Brampton**, and **Bolton-Caledon**.

#### HIG Weight

- The Ontario HBAM Inpatient Grouper (HIG) (Similar to CMG+) aggregates acute care separations with similar resource use and clinical characteristics based on most responsible diagnosis and/or principal intervention. The HIG weight is a relative cost value that reflects the resources consumed during each acute care stay. The mean HIG weight for Central West LHIN residents increased from 1.33 2014/15 to 1.40 in 2016/17 – a change of 5.3%. Although the mean HIG weight for Central West LHIN residents increased since 2014/15, it remains the lowest among all LHINs.
- The top 3 HIGs accounting for the highest proportion of acute care days for Central West LHIN residents in 2016/17 were: 196-heart failure without coronary angiogram, 810-palliative care, and 026-ischemic event of central nervous system.

### Acute Care Hospital Utilization (Excluding ALC) LHIN of Patient, Central West LHIN, 2016/17

	Central West LHIN Residents	Ontario Residents*	Rank among LHINs	Range across CW sub-regions**
<b>Acute Care Measures</b>				
Total Population	935,164	13,982,984		78,532 – 330,632
Acute Separations	63,173	1,028,979		2,210 – 21,069
Acute Separation Rate per 1,000 Population	68	74	4 <sup>th</sup> Highest	52 - 76
Acute Days	305,905	5,455,693		10,436– 100,744
Acute Days Rate per 1,000 Population	327	390	3 <sup>rd</sup> Highest	247 – 415
Total Days	331,821	6,477,528		11,174– 108,048
Total Days Rate per 1,000 Population	355	463	Lowest	264 – 464
Mean Acute LOS	4.8	5.3	2 <sup>nd</sup> Lowest	4.2 – 5.5
Mean Total LOS	5.3	6.3	Lowest	4.6 – 6.1
Mean HIG Weight	1.40	1.55	Lowest	—
<b>Leading HIGs (Acute Care Days)†</b>				
(196) Heart Failure w/o Coronary Angiogram	8,941	175,995		259 – 3,230
(810) Palliative Care	8,018	110,197		279 – 3,378
(026) Ischemic Event of Central Nervous System	6,604	96,544		194 – 2,023

\* Ontario residents exclude Out-of-province

\*\* Excludes values for patients in “unassigned sub-region” from this LHIN. LHIN totals include patients in unassigned sub-region.

† Leading HIGs include Out-of-province for Ontario Values

### Acute Care Utilization for Central West LHIN Facilities

- There were 49,603 acute separations, 229,479 acute days, and 249,749 total days at Central West LHIN hospitals in 2016/17.

### Separations

- Separations increased by 4.4% between 2013/14 and 2016/17. During this same period, for Ontario hospitals overall, separations increased by 3.8%.

### Acute Days

- Acute days increased by 4.9% between 2013/14 and 2016/17. Acute days increased by 2.2%, for all Ontario hospitals overall, during this same period.
- Mean acute length of stay for 2016/17 at hospitals in the Central West LHIN was 4.6 days. This is lower than the provincial result of 5.3 days and the second lowest within all LHINs.

### Total Days

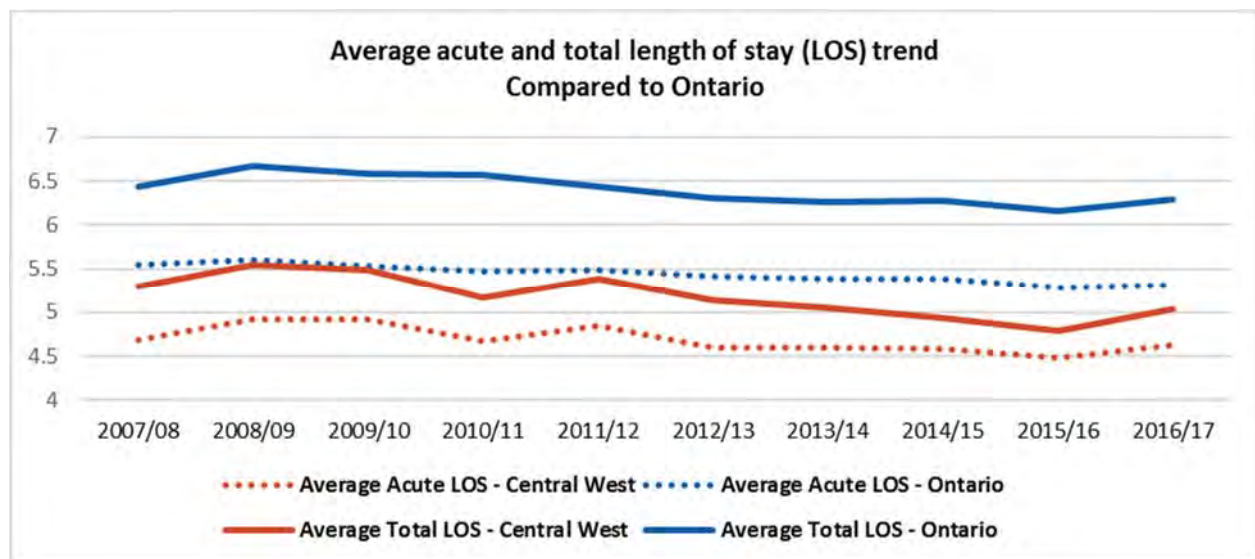
- Total days increased by 4.1% between 2013/14 and 2016/17. Overall Ontario hospitals had an increase of 4.2% of total days during this period.
- Mean total length of stay for this LHIN was 5.0 days. This is the lowest value among all LHINs and lower than the mean total length of stay for Ontario, which was 6.3 days.

### HBAM Group (HIG) Weight

- Mean HIG weight for Central West LHIN hospitals in 2016/17 of 1.23 was lower than the provincial value of 1.55 and is the lowest value among all LHINs.

### Acute care hospital utilization, Central West LHIN, 2016/17

Measure	Central West LHIN	Ontario hospitals	Comments	LHIN % change 2013/14 - 2016/17	Range within LHINs
Acute separations	49,603	1,041,308		4.4%	26,295 - 159,315
Total days	249,749	6,542,800		4.1%	193,259 - 1,050,391
Mean total LOS	5.0	6.3	Lowest		5.0 - 7.3
Acute days	229,479	5,518,912		4.9%	142,875 - 917,167
Mean acute LOS	4.6	5.3	2 <sup>nd</sup> lowest		4.5 - 5.8
Mean HIG weight	1.23	1.55	Lowest		1.23 - 1.94



## Acute Care Inflow/Outflow

### Inflow

- 16.8% of hospital separations from Central West LHIN hospitals were by non-Central West LHIN residents

### Outflow

- 34.7% of separations for Central West LHIN residents were from hospitals outside Central West LHIN
- This is the **highest** proportion of outflow among all LHINs
  - By sub-region, **North Etobicoke Malton West Woodbridge** had the 4<sup>th</sup> highest outflow to other LHINs (41.4%), while Bolton Caledon had the 6<sup>th</sup> highest (38.0%) and **Brampton** had the 7<sup>th</sup> highest (37.5%)

### Inflow - Outflow, Central West LHIN, 2016/17

Measure	Central West LHIN	Ontario Hospitals	Comments	Range across CW sub-regions <sup>†</sup>
Acute separations, LHIN of hospital	49,603	1,041,322		1,370 – 13,169
Acute separations, LHIN of patient	63,173	1,041,322		2,210 – 21,069
% inflow	16.8%			NA
% outflow	34.7%		<b>Highest</b>	26.3% - 41.4%

<sup>†</sup>Excludes unassigned sub-region

## Post-Acute Care

### Inpatient Rehabilitation Utilization

#### Rehabilitation Admissions

- The number of total rehabilitation admissions at the LHIN hospitals, including both general admissions and special admissions, was 1,011 in FY 16/17, an increase of 29.9% from FY 13/14.
  - The number of general rehabilitation admissions was 1,011 in FY 16/17, an increase of 29.9% from FY 13/14.
- The number of total rehabilitation admissions of the LHIN residents, was 1,611 in FY 16/17, an increase of 15.1% from FY 13/14.

#### Active Cases and Discharges

- In FY 16/17, the number of active cases was 1,115 while the number of discharges was 1,018.

#### Inpatient Days

- The number of total inpatient days was 28,599 in FY 16/17.
- The mean length of stay at the LHIN hospitals was 28.1 days.
- By sub-region of patient residence:
  - **Bolton-Caledon** residents had the longest length of stay at 29.7 days.
  - **North Etobicoke Malton West Woodbridge** residents had the shortest length of stay at 26.0 days.

#### Admission Rate

- The number of admissions per 100,000 adults (age 18+) was 221.9 in FY 16/17, an increase of 8.3% from FY 13/14.
  - Age group 18-44 years had the lowest admission rate, 36.8 per 100,000 population.
  - Age group 80+ years had the highest admission rate, 2,022.1 per 100,000 population.
- By sub-region of patient residence:
  - **North Etobicoke Malton West Woodbridge** residents had the highest admission rate at 293.0.
  - **Dufferin** residents had the lowest admission rate at 126.3.

#### Active Case Rate

- The number of active cases per 1,000 population age 18+ was 261.2.

#### Discharge Rate

- The number of discharges per 1,000 population age 18+ was 221.1.

#### Leading Rehabilitation Group

- The 5 leading rehabilitation groups that contributed to the total admissions in FY 16/17 were:
  - Stroke accounted for 318 admissions or 19.7% of the total admissions.
  - Other disabilities accounted for 288 admissions or 17.9% of the total admissions.
  - Fracture of lower extremity accounted for 234 admissions or 14.5 % of the total admissions.
  - Replacement of lower extremity accounted for 141 admissions or 8.8% of the total admissions.
  - Cardiac accounted for 93 admissions or 5.8% of the total admissions.

### Outflow

- Hospitals outside the LHIN accounted for 45.3% of the total rehabilitation admissions of the LHIN residents
- By sub-region of patient residence:
  - Dufferin** residents had the highest rate of admission to hospitals outside the LHIN at 70.5%.
  - Bramalea** residents had the highest rate of admission to hospitals outside the LHIN at 29.5%.

### Inflow

- 12.8% of the rehabilitation admissions at the hospitals in the LHIN were residents from outside Central West.

Rehab Admissions, Active Cases, Discharges and Days*	LHIN	Ontario	Ranking Among LHINs**	% Change 2013/14-2016/17	Range across sub-region
<b>LHIN of hospital</b>					
General admissions	1,011	28,691		29.9%	
Special admissions		4,444			
Total admissions	1,011	33,135		29.9%	
% Inflow inpatient rehab admissions	12.8%				
Active Cases	1,115	43,329			
Discharges	1,018	33,133			
Total Days (discharged cases only)	28,599	839,228			
Mean Length of Stay (discharged cases only)	28.1	25.3	4 <sup>th</sup> highest		
<b>LHIN of patient</b>					
Total population age 18+	725,949	11,287,810		5.9%	
Total admissions	1,611	33,016		15.1%	54-553
Admissions/100,000 population age 18+	221.9	292.5	3 <sup>rd</sup> lowest	8.3%	126.3-293.0
Admissions/100,000 population age 18-44 years	36.8	30.4	3 <sup>rd</sup> highest		32.9-47.0
Admissions/100,000 population age 45-64 years	148.3	150.9			81.5-195.0
Admissions/100,000 population age 65-79 years	666.2	689.3			336.9-771.3
Admissions/100,000 population age 80+ years	2,022.1	2,311.8			622.5-2,391.7
% Outflow inpatient rehabilitation admissions	45.3%				29.5%-70.5%
Active cases per 1,000 population age 18+	261.2	382.3	2 <sup>nd</sup> lowest		149.0-341.1
Discharges per 1,000 population age 18+	221.1	292.5	3 <sup>rd</sup> lowest		123.1-288.4
Mean Length of Stay (discharged cases only)	28.1	25.3	4 <sup>th</sup> highest		26.0-29.7

Measure	North Etobicoke Malton West Woodbridge	Dufferin	Bolton- Caledon	Bramalea	Brampton
Rehab Admissions	506	78	54	420	553
Rehab Admission Rate per 100,000 Population	293.0	126.3	164.1	203.9	218.9
Rehab Active Cases	589	92	64	479	672
Rehab Active Case Rate per 100,000 Population	341.1	149.0	194.5	232.6	266.0
Rehab Discharges	498	76	56	422	553
Rehab Discharge Rate per 100,000 Population	288.4	123.1	170.2	204.9	218.9
Total Inpatient Days (discharged cases only)	12,966	2,148	1,662	12,358	15,989
Mean LOS (discharged cases only)	26.0	28.3	29.7	29.3	28.9
<b>Age specific admission rates per 100,000 population</b>					
18-44 years	47.0	33.2	-	32.9	36.6
45-64 years	195.0	81.5	102.0	131.2	156.1
65-79 years	771.3	387.2	336.9	684.5	708.8
80+ years	2,063.3	622.5	1,916.2	2,391.7	2,201.0

Rehab Admissions, by Leading Rehabilitation Groups*	LHIN	% of Total Rehab Admission
<b>LHIN of Patient</b>		
01-Stroke	318	19.7%
18-Other disabilities	288	17.9%
10-Fracture of lower extremity	234	14.5%
11-Replacement of lower extremity	141	8.8%
13-Cardiac	93	5.8%
12-Other orthopaedic		
03-Non-traumatic brain injury		
06-Non-traumatic spinal cord injury		
07-Amputation		
02-Traumatic brain injury		
16-Major multiple trauma		

\* FY 16/17 data unless noted otherwise.

\*\* Top or bottom 4 ranking in the province, compared to other LHINs.

## Complex Continuing Care Utilization

### Complex Continuing Care

- In 2016/17, there were 386 CCC active cases treated in Central West LHIN hospitals and residents from outside the LHIN accounted for 8.8% of these active cases. In 2016/17, there were 342 admissions and 348 discharges from Central West LHIN hospital CCC units. Central West LHIN hospitals had a mean LOS of 52.3 days - ranking 4<sup>th</sup> across LHINs.
- There were increases in the number of active cases (49.0%), admissions (60.6%), discharges (52.6%) and total days (42.1%) for Central West LHIN hospital CCC units between 2013/14 and 2016/17.
- During the period, the mean length of stay in CCC beds decreased from 56.2 days to 52.3 days.
- In 2016/17, there were 661 CCC active cases for Central West LHIN residents and 46.7% of these cases were treated in hospitals outside the LHIN.
- The active case rate for Central West LHIN residents was lower than the provincial value.

### Utilization of Complex Continuing Care, Central West LHIN and Ontario, 2016/17

Measure	Central West LHIN		Ontario	
	LHIN Values	% Change 2013/14- 2016/17	Provincial Value	% Change 2013/14- 2016/17
<b>LHIN of Hospital</b>				
Active Cases	386	49.0%	29,466	-0.1%
% Inflow	8.8%			
Admissions	342	60.6%	24,108	0.5%
Discharges	348	52.6%	23,995	-0.2%
Total Days	18,213	42.1%	1,855,227	-2.0%
Mean LOS	52.3		77.3	
<b>LHIN of Patient</b>				
Active Cases	661	-2.5%	29,366	0.3%
Active cases/100,000 population	70.7	-7.2%	210.0	-2.9%
% Outflow	46.7%			
Admission	547	-3.5%	24,022	0.8%
Admissions/100,000 population	58.5		171.8	
Discharges	551	-1.6%	23,908	0.1%
Discharges/100,000 population	58.9		171.0	
Total Days	52,748	58.9%	1,850,599	-1.1%
Mean LOS	95.7		77.4	



## Alternate Level of Care

### LHIN overview

Central West LHIN						
Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Rank
Acute ALC Days (closed cases)	21,318	17,289	15,097	20,270	NV	1
% ALC Days (Acute Inpatient closed cases)	8.9%	7.1%	6.4%	8.1%	NV	1
Volume of Closed Cases	2,050	1,747	1,433	1,687	1,683	1
Volume of Closed Cases - Home with CCAC Services	374	285	225	114	153	
Volume of Closed Cases – Rehabilitation	812	947	736	1,060	1,009	
Volume of Closed Cases - Supervised or Assisted Living	62	89	94	162	140	
90 <sup>th</sup> Percentile Wait of Closed Cases (Days)	32	23	23	22	27	2
90 <sup>th</sup> Percentile Wait of Closed Cases - Home with CCAC Services	20	17	20	27	25	
90 <sup>th</sup> Percentile Wait of Closed Cases – Rehabilitation	17	14	11	14	18	
90 <sup>th</sup> Percentile Wait of Closed Cases - Supervised or Assisted Living	22	37	35	31	47	
Volume of Open Cases on the last day of the year	80	48	46	53	80	1
Volume of Open Cases - Home with CCAC Services	9	9	2	2	8	
Volume of Open Cases – Rehabilitation	36	16	15	22	43	
Volume of Open Cases - Supervised or Assisted Living	3	5	7	5	12	
90 <sup>th</sup> Percentile Wait of Open Cases	124	96	160	63	136	2
90 <sup>th</sup> Percentile Wait of Open Cases - Home with CCAC Services	0	0	0	0	0	
90 <sup>th</sup> Percentile Wait of Open Cases – Rehabilitation	24	27	29	23	26	
90 <sup>th</sup> Percentile Wait of Open Cases - Supervised or Assisted Living	0	0	0	0	169	
Throughput Ratio (discharged case/newly added cases)	1.01	1.02	1.00	1.00	0.98	4
% of Cases Designated ALC Within 1 Day	11.8%	6.9%	3.7%	2.1%	3.1%	1
% of Cases Designated ALC Within 2 Days	14.4%	10.1%	6.8%	5.3%	5.6%	1
% of Cases Designated ALC Within 3 Days	19.1%	14.5%	12.6%	9.8%	10.6%	1
ALC Rate - All Inpatient Services	10.4%	6.3%	5.5%	6.4%	8.1%	1
ALC Rate - Acute Inpatient Services	9.8%	7.0%	6.8%	8.2%	10.2%	1
ALC Rate - Post-Acute Inpatient Services	12.3%	4.0%	1.4%	0.2%	0.3%	1
ALC Rate - CCC Inpatient Services	36.9%	13.7%	3.1%	0.6%	1.2%	1
ALC Rate - Rehab Inpatient Services	5.2%	1.0%	1.7%	0.0%	0.2%	1
ALC Rate - Mental Health Inpatient Services	0.8%	0.0%	0.0%	0.0%	0.0%	1

## Closed ALC Cases

### Acute ALC Days

- Acute ALC Days decreased by 1,048 from FY 13/14 to FY 16/17.

### % ALC Days (Acute Inpatient)

- % ALC Days decreased from 8.9% in FY 13/14 to 8.1% in FY 16/17.

### Volume of Closed Cases

- The volume of closed cases for all inpatient services decreased by 18% from 2,050 in FY 13/14 to 1,683 in FY 17/18.
  - Home with CCAC Services – number of closed cases decreased by 59% from 374 in FY 13/14 to 153 in FY 17/18
  - Rehabilitation – number of closed cases increased by 24% from 812 in FY 13/14 to 1,009 in FY 17/18
  - Supervised or Assisted Living – number of closed cases increased by 126% from 62 in FY 13/14 to 140 in FY 17/18

### 90<sup>th</sup> Percentile Wait of Closed Cases

- The wait time for closed cases (all inpatients services and all discharge destinations) decreased by 16% from 32 days in FY 13/14 to 27 days in FY 17/18. Patients discharged from Central West LHIN hospitals tied for **lowest** wait across LHINs at the end of FY 17/18.
  - Home with CCAC Services – wait time increased by 25% from 20 days in FY 13/14 to 25 days in FY 17/18.
  - Rehabilitation – wait time increased by 6% from 17 days in FY 13/14 to 18 days in FY 17/18.
  - Supervised or Assisted Living – wait time increased by 114% from 22 days in FY 13/14 to 47 days in FY 17/18.

### *Wait Time by Sub-Region of Patient Residence*

- **Dufferin** residents had the longest wait in the LHIN at 51 days; **Bramalea** had the shortest at 24 days.
- **Bramalea** is tied 3<sup>rd</sup> lowest in province
- **Brampton** is tied 4<sup>th</sup> lowest in province

## Open ALC Cases

### Volume of Open Cases

- The number of ALC waitlist entries open across all inpatient bed types remained steady at 80 at the end of FY 13/14 to 80 at the end of FY 17/18.
  - Home with CCAC Services – number of open cases decreased by 11% from 9 at the end of FY 13/14 to 8 at the end of FY 17/18.
  - Rehabilitation – number of open cases increased by 19% from 36 at the end of FY 13/14 to 43 at the end of FY 17/18.
  - Supervised or Assisted Living – number of open cases increased by 300% from 3 at the end of FY 13/14 to 12 at the end of FY 17/18.

### 90<sup>th</sup> Percentile Wait of Open Cases

- The wait time for open cases (all inpatients services and all discharge destinations) increased by 10% from 124 days at the end of FY 13/14 to 136 days at the end of FY 17/18. Patients awaiting discharge from Central

West LHIN hospitals had waited 109 days longer than patients who were discharged in 17/18, but had waited the 2<sup>nd</sup> shortest across LHINs at the end of FY 17/18.

- Home with CCAC Services – wait time stayed at 0 days from FY 13/14 to FY 17/18.
- Rehabilitation – wait time increased by 8% from 24 days at the end of FY 13/14 to 26 days at the end of FY 17/18.
- Supervised or Assisted Living - wait time was 169 days at the end of FY 17/18.

#### *Wait Time by Sub-Region of Patient Residence*

- **Bramalea** residents had the longest wait in the LHIN at 506 days; **Dufferin & Bolton-Caledon** had the shortest at 0 days
- **Bramalea** is tied for **lowest** in province
- **Brampton** is tied for **lowest** in province
- **Dufferin** is 4<sup>th</sup> lowest in province

#### **ALC Wait Time (Days) by Sub-Region of Patient Residence**

Central West LHIN					
Closed & Open Cases - All Discharge Destinations by Sub-Region	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
<i>90<sup>th</sup> Percentile Wait of Closed Cases</i>					
501 NORTH ETOBICOKE MALTON WEST WOODBRIDGE	35	30	32	45	37
502 DUFFERIN	44	48	45	57	51
503 BOLTON-CALEDON	38	45	60	34	42
504 BRAMALEA	21	20	20	21	24
505 BRAMPTON	28	24	30	24	25
<i>90<sup>th</sup> Percentile Wait of Open Cases</i>					
501 NORTH ETOBICOKE MALTON WEST WOODBRIDGE	179	95	192	233	169
502 DUFFERIN	0	0	0	0	0
503 BOLTON-CALEDON	0	0	0	0	0
504 BRAMALEA	133	485	478	843	179
505 BRAMPTON	67	271	162	344	77

#### Hospital Processes and Capacity

##### **ALC Throughput Ratio**

- In the Central West LHIN, the throughput ratio decreased from 1.01 in FY 13/14 to 0.98 in FY 17/18

##### **Percentage of Patients Designated ALC within 1, 2 & 3 Days of Admission**

- The percentage of patients that have been designated as requiring an alternate level of care within one, two and three days of admission to hospital decreased over the last five years in the Central West LHIN from FY 13/14 to FY 17/18. All 3 measures are the lowest rates in the province (14<sup>th</sup>, 14<sup>th</sup>, 14<sup>th</sup> respectively)

##### **ALC Rate (All Inpatient Services)**

- The annual ALC rate for all inpatient beds decreased from 10.4% in FY 13/14 to 8.1% in FY 17/18.
- In FY 17/18, the Central West LHIN was below the provincial rate of 15.4%.

#### *Acute I/P Services*

- Central West LHIN increased over the past 5 fiscal years (9.8% FY 13/14; 10.2% FY 17/18) and is now 6.0% below the provincial value.

#### Post-Acute I/P Services

- Central West LHIN decreased over the past 5 fiscal years (12.3% FY 13/14; 0.3% FY 17/18). Central West LHIN is below the provincial Post-acute ALC rate (lowest in ON).
  - CCC Inpatient Services – 14<sup>th</sup> across LHINs for FY 17/18. Rate decreased from 36.9% in FY 13/14 to 1.2% in FY 17/18.
  - Rehab Inpatient Services - 14<sup>th</sup> across LHINs for FY 17/18. Rate decreased from 5.2% in FY 13/14 to 0.2% in FY 17/18.
  - Mental Health Inpatient Services – 14<sup>th</sup> across LHINs for FY 17/18. Rate decreased from 0.8% in FY 13/14 to 0.0% in FY 17/18.

#### LHIN/Facility/Site – Annual ALC Rate

Province/LHIN/Facility/Site			Annual ALC Rate					% Change
			FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 13/14 to FY 17/18
<b>Provincial</b>			<b>13.8%</b>	<b>13.7%</b>	<b>13.9%</b>	<b>14.8%</b>	<b>15.4%</b>	
<b>LHIN</b>	<b>5</b>	<b>Central West</b>	10.4%	6.3%	5.5%	6.4%	8.1%	(-2.3%)
<b>Facility</b>	916	HEADWATERS HEALTH CARE CENTRE	16.8%	8.2%	10.3%	8.5%	11.8%	(-5.0%)
<b>Facility</b>	951	WILLIAM OSLER HEALTH CENTRE	9.8%	6.1%	5.1%	6.3%	7.8%	(-2.0%)
<b>Site</b>	4245	WILLIAM OSLER -ETOBICOKE	15.0%	7.5%	6.9%	7.9%	12.1%	(-2.9%)
<b>Site</b>	4685	WILLIAM OSLER - Brampton Civic Hospital	7.2%	5.4%	4.3%	5.5%	5.9%	(-1.3%)

- In FY 17/18, Headwaters Health Care Centre had the highest ALC Rate across the Central West LHIN at the facility level, with William Osler – Etobicoke having the highest site level rate.
- All ALC rates have decreases compared to FY 13/14
- Headwaters Health Care Centre had the greatest LHIN decrease in ALC Rate since FY 13/14 (-5.0%).

## Long-Term Care

### Long-Term Care Bed Supply

- 23 LTC homes are licensed and approved to operate in the Central West LHIN.
- As of February 2018, there were a total of 3,505 Long-Term Care beds in operation in the Central West LHIN.
  - With the exception of 52 beds designated as Short-stay, Respite or Convalescent care beds, almost all of the LTC beds are designated Long-Stay Beds or Interim beds.

### Long-Term Care Waitlist & Placements

- Of the 992 patients placed in the Central West LHIN Long-Term Care Homes in FY 2017/18, approximately 86% were from the community while only 8% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- Of the 842 residents of the Central West LHIN placed in Ontario Long-Term Care Homes in FY 2017/18, approximately 88% were from the community while only 9% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- The median time to placement in a Central West LHIN long-term care home, as of March 2018, was 125 days.
  - Half of community patients waited less than 125 days for a placement in a the Central West LHIN LTC home while half of hospital patients waited less than 106 days for placement in a the Central West LHIN LTC Home.
- The median time to placement for a Central West LHIN resident to be placed in a long-term care home, as of March 2018, was 102 days.
  - Half of community patients from the Central West LHIN waited less than 103 days for a placement in an Ontario LTC home while half of hospital patients waited less than 92 days for placement.
- As of March 2018, there were 921 patients on the waitlist waiting for placement in a Long-Term Care home in the Central West LHIN (not including patients awaiting transfer from one LTC home to another).
- As of March 2018, there were 1,004 residents of the Central West LHIN on the waitlist waiting for placement in an Ontario Long-Term Care home (not including patients awaiting transfer from one LTC home to another).

### Long-Stay Demand

- As of March 2018, there were 3,282 long-stay residents occupying LTC Homes within the Central West LHIN.
- When adjusted for the size of the older population, the Central West LHIN has approximately 77 Long-Stay beds per 1,000 people aged 75+.
- The gap between the demand and supply of Long-Term Care Homes in the Central West LHIN reflects a shortage of approximately 750 Long-Stay beds.
  - **North Etobicoke Malton West Woodbridge** sub-region demonstrated a shortfall of 298 beds, while **Bolton-Caledon** had a surplus of 20 beds (supply exceeds demand).

### Selected Characteristics of Long-Term Care Home Residents

- In the Central West LHIN, 82% of residents were over the age of 75 with 54% being over the age of 85.
- In 2016/17, the mean age of residents of LTC Homes in the Central West LHIN was 83.
- The mean length of stay for residents of LTC Homes in the Central West LHIN was 997 days (about 2.7 years) with half of residents remaining in LTC homes for less than 603 days.
- Nearly 85% of residents need extensive help with daily activities such as getting out of bed, eating, or toileting; 33% are highly or entirely dependent on staff.
- 79% have some form of cognitive impairment; 27% are severely impaired.
- 39% exhibit some level of aggressive behaviour related to their cognitive impairment or mental health condition with 5% exhibiting very severe aggressive behavior.

- 62% of active LTC Residents in the Central West LHIN LTC Homes have been identified as having some form of dementia.

### Long-term care home supply, waitlists and placements, and resident characteristics, by LHIN sub-region

	Central West		0501		0502		0503		0504		0505	
			North Etobicoke Malton West Woodbridge		Dufferin		Bolton-Caledon		Bramalea		Brampton	
Long-term care bed supply in the sub-region (February 2018)	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-term care homes	23		7		3		2		4		7	
					3							
Long-stay beds	3,45		1,37		5							
Short-stay, respite & convalescent care beds	3	76.6	5	96.0	3	79.9	148	67.8	590	57.5	987	70.8
	52	1.2	22	1.5	4	0.9	2	0.9	10	1.0	14	1.0
					3							
Total beds in operation	3,50		1,39		5						1,0	
	5	77.7	7	97.6	7	80.8	150	68.8	600	58.5	01	71.8

*\*The denominator for the rate calculation refers to the number of sub-region residents age 75+; however the LTC homes/beds may serve individuals from other sub-regions. Therefore, rates should be interpreted with caution.*

	Central West		0501		0502		0503		0504		0505	
			North Etobicoke Malton West Woodbridge		Dufferin		Bolton-Caledon		Bramalea		Brampton	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Long-stay waitlist without transfer patients*	921	20.4	356	24.9	119	26.9	64	29.3	161	15.7	221	15.9
Placements**												
From community	852	85.9%	356	81.7%	76	86.4%	38	80.9%	133	88.7%	249	91.9%

	Central West		0501		0502		0503		0504		0505	
			North Etobicoke Malton West Woodbridge		Dufferin		Bolton-Caledon		Bramalea		Brampton	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
From hospital	84	8.5%	43	9.9%	10	11.4%	7	14.9%	11	7.3%	13	4.8%
Total	992		436		88		47		150		271	
<b>Median time to placement (days)</b>												
From community	125		145.5		199.5		255.0		96.0		87.0	
From hospital	106		90.0		131.0		460.0		99.0		68.0	
Total	125		144.5		189.0		298.0		95.5		86.0	
<b>By sub-region of patient (patients who reside within the sub-region and are awaiting placement in any home)</b>												
Long-stay waitlist without transfer patients*	1,004	22.3	412	28.8	136	30.8	51	23.4	164	16.0	241	17.3
Placements**												
From community	739	87.8%	215	85.0%	95	83.3%	43	91.5%	164	87.7%	222	92.1%
From hospital	78	9.3%	25	9.9%	15	13.2%	3	6.4%	21	11.2%	14	5.8%
Total	842		253		114		47		187		241	
<b>Median time to placement (days)</b>												
From community	103		126.0		155.0		125.0		79.0		95.0	
From hospital	92		141.0		68.0		99.0		66.0		81.0	
Total	102		124.0		143.5		125.0		79.0		91.0	

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents

Placements from other locations (correctional facilities, homeless, out-of-province) are not shown but are included in the total placement values.



	Central West		0501		0502		0503		0504		0505	
			North Etobicoke Malton West Woodbridge		Dufferin		Bolton-Caledon		Bramalea		Brampton	
Long-stay demand (February / March 2018) for LTC homes in the sub-region	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-stay residents	3,282	72.8	1,317	92.0	350	79.2	64	29.3	582	56.8	969	69.5
Long-stay waitlist without transfer patients	921	20.4	356	24.9	119	26.9	64	29.3	161	15.7	221	15.9
Total demand	4,203	93.2	1,673	116.8	469	106.1	128	58.7	743	72.5	1,190	85.4
Total long-stay supply	3,453	77	1,375	96.0	353	79.9	148	67.8	590	57.5	987	70.8
Difference between supply and demand	750	17	298	20.8	116	26.3	(20)	(9.2)	153	14.9	203	14.6

	Central West		0501		0502		0503		0504		0505	
			North Etobicoke Malton West Woodbridge		Dufferin		Bolton-Caledon		Bramalea		Brampton	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Demography, volume and length of stay (LOS)</b>												
Active LTC Residents*	2,920	64.7	1,049	73.3	317	71.7	136	62.3	539	52.6	879	63.1
Number of admissions*	1,182	26.2	427	29.8	131	29.6	56	25.7	233	22.7	335	24.0
<b>By age group**</b>												
Residents age <65	182	6.2%	83	7.9%	10	3.2%	11	8.1%	30	5.6%	48	5.5%
Residents age 65-74	341	11.7%	138	13.2%	41	12.9%	28	20.6%	51	9.5%	83	9.4%
Residents age 75-84	817	28.0%	268	25.5%	101	31.9%	47	34.6%	169	31.4%	232	26.4%
Residents age 85+	1,580	54.1%	560	53.4%	165	52.1%	50	36.8%	289	53.6%	516	58.7%

	Central West		0501		0502		0503		0504		0505	
			North Etobicoke Malton West Woodbridge		Dufferin		Bolton-Caledon		Bramalea		Brampton	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Mean age of residents	83		82		84		80		83		84	
Mean age of residents at admission	83		83		83		80		84		83	
<b>Length of stay</b>												
Mean LOS (days)	997		927		1,093		931		1,010		1,037	
Median LOS (days)	603		442		700		553		684		670	
<b>Residents by level of ADL assistance required**</b>												
None or limited assistance required	452	15.5%	142	13.5%	77	24.3%	15	11.0%	63	11.7%	155	17.6%
Extensive assistance required	1,503	51.5%	490	46.7%	181	57.1%	80	58.8%	335	62.2%	417	47.4%
Dependent	965	33.0%	417	39.8%	59	18.6%	41	30.1%	141	26.2%	307	34.9%
<b>Residents by level of aggressive behaviour**</b>												
No signs of aggressive behaviour	1,781	61.0%	656	62.5%	186	58.7%	53	39.0%	335	62.2%	551	62.7%
Some signs of aggressive behaviour	632	21.6%	196	18.7%	78	24.6%	48	35.3%	114	21.2%	196	22.3%
Moderate to severe aggressive behaviour	366	12.5%	126	12.0%	41	12.9%	31	22.8%	67	12.4%	101	11.5%
Very severe aggressive behaviour	141	4.8%	71	6.8%	12	3.8%	<5		23	4.3%	31	3.5%
<b>Cognitive impairment categories **</b>												
Relatively intact	599	20.5%	181	17.3%	82	25.9%	15	11.0%	113	21.0%	208	23.7%
Mild impairment	1,535	52.6%	565	53.9%	169	53.3%	68	50.0%	289	53.6%	444	50.5%
Severe impairment	786	26.9%	303	28.9%	66	20.8%	53	39.0%	137	25.4%	227	25.8%
<b>RUG categories **</b>												
1 Extensive Services	127	4.3%	50	4.8%	<5		6	4.4%	23	4.3%	45	5.1%

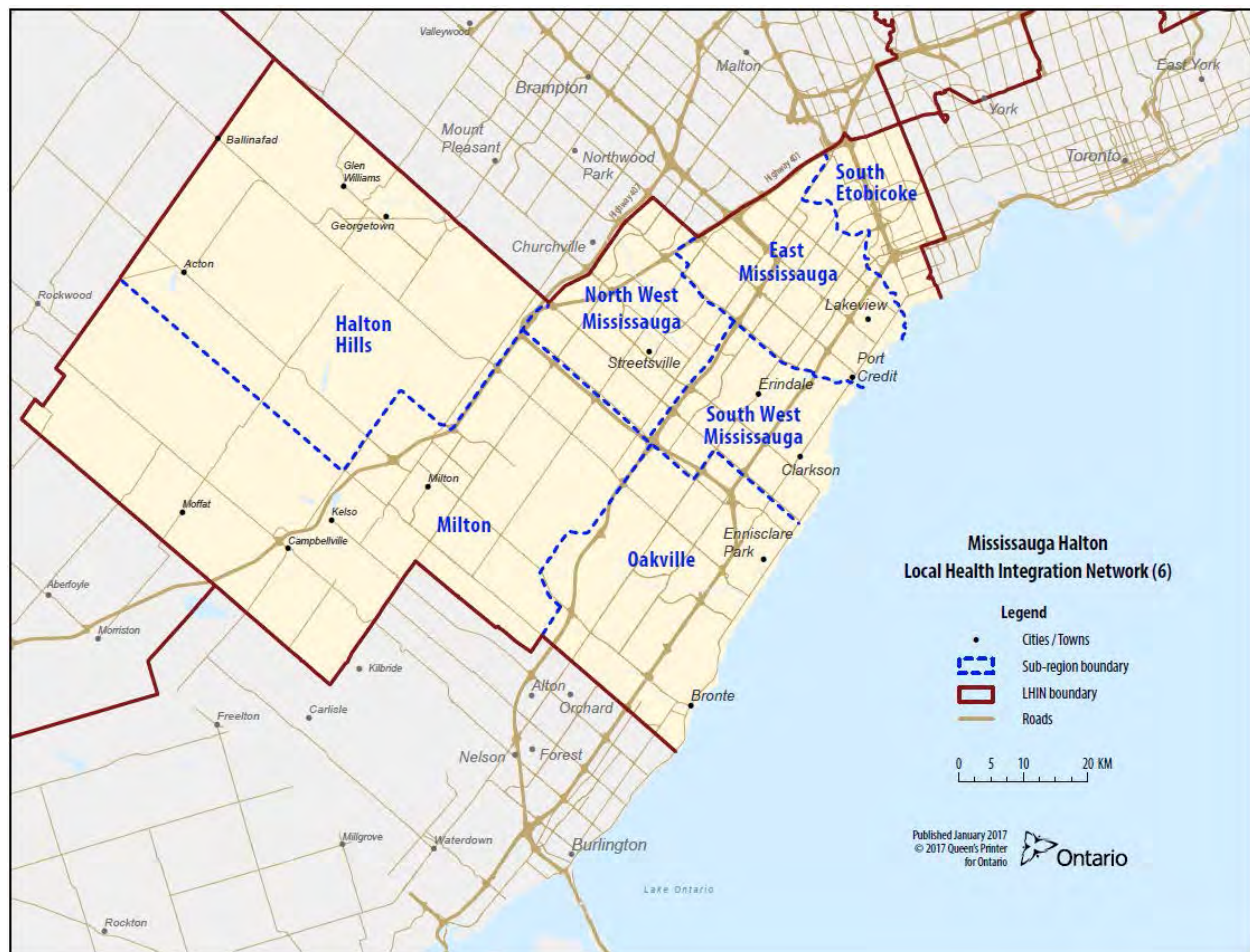
	Central West		0501		0502		0503		0504		0505	
			North Etobicoke Malton West Woodbridge		Dufferin		Bolton-Caledon		Bramalea		Brampton	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
2 Special Rehabilitation	117	4.0%	43	4.1%	15	4.7%	6	4.4%	17	3.2%	36	4.1%
3 Special Care	306	10.5%	107	10.2%	30	9.5%	18	13.2%	76	14.1%	75	8.5%
4 Clinically Complex	625	21.4%	244	23.3%	86	27.1%	17	12.5%	109	20.2%	169	19.2%
5 Impaired Cognition	261	8.9%	73	7.0%	39	12.3%	18	13.2%	48	8.9%	83	9.4%
6 Behavioural Problems	40	1.4%	11	1.0%	7	2.2%	<5		11	2.0%	8	0.9%
7 Reduced Physical Functions	1,444	49.5%	521	49.7%	137	43.2%	68	50.0%	255	47.3%	463	52.7%
<b>Residents with Dementia**</b>	<b>1,813</b>	<b>62.1%</b>	<b>634</b>	<b>60.4%</b>	<b>192</b>	<b>60.6%</b>	<b>106</b>	<b>77.9%</b>	<b>347</b>	<b>64.4%</b>	<b>534</b>	<b>60.8%</b>

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents



## 6. Mississauga Halton LHIN



## Contents

<b>6. Mississauga Halton LHIN</b>	<b>1</b>
<b>Highlights</b>	<b>1</b>
Mississauga Halton LHIN	1
Residents of Mississauga Halton LHIN Sub-Regions	3
<b>Population Characteristics</b>	<b>10</b>
Population Estimates	10
2016 Census Profile	11
Births and Mortality	18
General Health, Risk Factors, and Prevention	24
Chronic Conditions	26
<b>Human Resources</b>	<b>42</b>
<b>Primary Care</b>	<b>45</b>
Primary Care Enrolment	45
Selected Measures from the Health Care Experience Survey	45
<b>Community Care</b>	<b>47</b>
<b>Mental Health</b>	<b>48</b>
Wait Time for Community Services	48
Mental Health and Substance Abuse Emergency Department Visits	48
Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility	49
<b>Surgery &amp; Diagnostic Imaging</b>	<b>51</b>
Day Surgery and Cardiac Catheterization Utilization	51
Surgical & Diagnostic Imaging Wait Times	52
<b>Oncology and Dialysis</b>	<b>61</b>
<b>Home Care</b>	<b>64</b>
<b>Palliative Care</b>	<b>67</b>
<b>Emergency Department</b>	<b>70</b>
Emergency Department Utilization	70
Emergency Department Performance	75
<b>Acute Care</b>	<b>77</b>
Acute Care Utilization by Residents of the Mississauga Halton LHIN	77
Analysis of Acute Care Utilization for Mississauga Halton LHIN Facilities	78
Acute Care Inflow/Outflow	79
<b>Post-Acute Care</b>	<b>81</b>
Inpatient Rehabilitation Utilization	81
Complex Continuing Care Utilization	84
<b>Alternate Level of Care</b>	<b>85</b>
Closed ALC Cases	86
Open ALC Cases	86
Hospital Processes and Capacity	87
<b>Long-Term Care</b>	<b>89</b>

## Highlights

Comprehensive information about population demographics, health status, health outcomes, chronic conditions, human resources, primary care, health service utilization, and long-term care in the Mississauga Halton LHIN can be found under the content headings of in the remainder of this document, beginning with the socio-demographic profile. This Highlights introduction is intended to provide a guide to areas in which either the Mississauga Halton LHIN or one of its sub-regions is significantly different from the province as a whole. Sub-region comparisons within this section are always to the other 75<sup>1</sup> sub-regions across the province, and LHIN comparisons are always to the other 13 LHINs.

### Mississauga Halton LHIN

#### Population Characteristics

- Mississauga Halton had the **largest** population increase in the province between 2011 and 2016.
- The Mississauga Halton LHIN had the third highest percentage of recent immigrants. The country of origin for the largest proportion of recent immigrants was India.
- The Mississauga Halton LHIN had the **lowest** percentage of residents with less than high school.
- The overall and teen fertility rates were the **lowest** in the province.
- In 2016, the mean age of mothers at the birth of their first infant in Mississauga Halton was the 2<sup>nd</sup> highest age in the province. Mississauga Halton had the **lowest** proportion of women giving birth who were under 20 years of age, and the 2<sup>nd</sup> highest of women 35 years or older.
- Mississauga Halton had the **highest** proportion of hospital births attended by an obstetrician, the 2<sup>nd</sup> lowest attended by a family doctor, the 3<sup>rd</sup> lowest by a midwife, and the **lowest** attended by a health care provider other than an obstetrician, family doctor or midwife.
- Mississauga Halton had the 2<sup>nd</sup> lowest rate of active home care referrals.
- The Mississauga Halton LHIN had the **lowest** nursing visit rate in 2017/18.
- Mississauga Halton LHIN had the **lowest** ED visit rate in 2016/17.
- Mississauga Halton residents had the **lowest** proportion of emergency department visits for opioid overdose that were accidental.
- The Mississauga Halton LHIN had a **significantly higher** percentage of people who died in hospital than the provincial value.
- Residents of the Mississauga Halton LHIN had the **lowest** hospital separation rate from acute beds in 2016/17.
- The Mississauga Halton LHIN had the 2<sup>nd</sup> highest proportion of rehabilitation inflow (residents of other LHINs admitted to inpatient rehabilitation beds in the Mississauga Halton LHIN).

#### Strengths

- Mississauga Halton residents report the 2<sup>nd</sup> lowest exposure to second-hand smoke in the home.
- Among vaginal deliveries, the assisted delivery rate using forceps was the 2<sup>nd</sup> lowest in the province.
- Mississauga Halton had the 2<sup>nd</sup> lowest proportion of pre-term hospitals births in the province.
- Mississauga Halton residents reported the **lowest** rate of daily or occasional smoking in 2015-16, s **significantly lower** than the Ontario rate.
- Mississauga Halton residents reported the 2<sup>nd</sup> lowest rate of obesity.
- Mississauga Halton LHIN had the **lowest** potential years of life lost for ischaemic heart disease in the province.

---

<sup>1</sup> Or however many sub-regions have reported data across the province.

- 2<sup>nd</sup> lowest percent of residents reporting difficulty accessing after-hours care without going to the ED.
- Mississauga Halton LHIN residents had the 2<sup>nd</sup> lowest ED visit rates for MH/SA conditions.
- Hospitals in the Mississauga Halton tied for the **highest** ALC throughput ratio.

#### Challenges/Opportunities

- The Mississauga Halton LHIN had the 2<sup>nd</sup> lowest percentage of residents who indicated that they received a flu shot in the year preceding the survey, **significantly lower** than the Ontario rate.
- 2<sup>nd</sup> highest proportion of newborns classified as “small for gestational age”.
- Mississauga Halton residents report the 2<sup>nd</sup> highest rate of overweight.
- In 2017/18, 90<sup>th</sup> percentile wait time for adult CT scans was **longest** in the Mississauga Halton LHIN.
- In 2017/18, 90<sup>th</sup> percentile wait time for pediatric CT was **longest** in the Mississauga Halton LHIN.



EAST MISSISSAUGA SUB-REGION HIGHLIGHTS

**Population Characteristics**

- 5<sup>th</sup> lowest percentage of residents who reports English as their mother tongue.
- 2<sup>nd</sup> highest percentage residents who were immigrants.
- 2<sup>nd</sup> highest percentage of residents who were recent immigrants. The country of origin for the largest proportion of recent immigrants was India.
- 3<sup>rd</sup> highest percentage of residents who were first generation Canadian.
- 7<sup>th</sup> lowest percentage of residents reporting Aboriginal identity.
- 7<sup>th</sup> lowest large for gestational age rate in the province.
- 6<sup>th</sup> highest percentage of residents who died in hospital.
- Among the longest acute length of stay in acute hospital beds in 2016/17.

**Strengths**

- 6<sup>th</sup> highest percentage of residents who were able to see their provider the same day or next day when they were sick.

**Challenges/Opportunities**

- 5<sup>th</sup> highest percentage of residents spending 30% or more of household income on rent or payments.
- 7<sup>th</sup> highest low birth weight rate in the province.

## HALTON HILLS SUB-REGION HIGHLIGHTS

### Population Characteristics

- 2<sup>nd</sup> lowest fertility rate in the province.
- 2<sup>nd</sup> highest percentage of residents age 15+ participating in the labour force.
- Among the eight lowest total home service visit rates in 2017/18.
- Among the eight highest nursing visit rates in 2017/18.
- Residents of Halton Hills had the 7<sup>th</sup> lowest mental health active case rate.
- In 2017/18, Halton Hills was among the eight sub-regions with the lowest service hour rates for personal support.
- 2<sup>nd</sup> lowest percentage of patients who receive palliative care who died in hospital in 2016/17 (tied with Brant).

### Strengths

- **Lowest** percentage population living below the low-income measure of all Ontario sub-regions.
- **Lowest** percentage of children under 6 and children under 18 living in low-income households of all 76 Ontario sub-regions.
- 6<sup>th</sup> lowest percentage of seniors (65+) living in low-income households.
- 6<sup>th</sup> lowest percentage of residents age 15+ who were unemployed.
- 8<sup>th</sup> highest percentage of residents who report satisfaction with health care in their community.
- 2<sup>nd</sup> lowest percentage of residents who went to ED for something that could have been treated by a primary care provider.
- 2<sup>nd</sup> lowest percentage of residents who found it difficult to access care after-hours without going to an emergency department.
- 7<sup>th</sup> lowest percentage of patients with two or more acute inpatient admissions in the last 30 days of life.
- At the end of 2017/18, there were no residents of Halton Hills designated ALC in any Ontario hospital.

### Challenges/Opportunities

- 5<sup>th</sup> highest percent of residents with one or more unplanned ED visits in the last 30 days of life.

## MILTON SUB-REGION HIGHLIGHTS

### Population Characteristics

- According to the census, **Milton** had the **highest** population growth of all Ontario sub-regions between 2011 and 2016 .
- 3<sup>rd</sup> lowest percentage of population aged 65+.
- 3<sup>rd</sup> lowest percentage of population aged 75+.
- 7<sup>th</sup> lowest percentage of people age 65+ living alone.
- 7<sup>th</sup> lowest percentage of residents with less than high school.
- **Highest** participation rate of residents in the labour force among all Ontario sub-regions.
- 3<sup>rd</sup> highest fertility rate in the province.
- 3<sup>rd</sup> lowest all-cause mortality rate per 100,000 population among Ontario sub-regions.
- In 2017/18, **Milton** was among the eight sub-regions with the lowest service hour rates for personal support.
- 8<sup>th</sup> lowest rate of palliative home visits in the last 90 days of life in 2016/17.
- Among the shortest acute length of stay in acute hospital beds in 2016/17.
- Among the shortest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- 4<sup>th</sup> lowest rehabilitation admission rate in FY16/17.

### Strengths

- **Lowest** percentage of dwellings in need of major repairs of all 76 sub-regions.
- 7<sup>th</sup> lowest percentage of children under 6 living in low-income households.
- 7<sup>th</sup> lowest percent of residents who were unemployed.
- 5<sup>th</sup> lowest pre-term birth rate in the province.
- **Significantly lower** prevalence rate of hypertension than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- Among the 8 sub-regions with the lowest percentage of complex patients (4+ conditions).
- Among the 8 sub-regions with the lowest percentage of high cost healthcare users
- **Lowest** mean cost per high cost healthcare user.
- **Lowest** acute length of stay in Ontario and the **lowest** total length of stay in Ontario
- 4<sup>th</sup> lowest all-cause potential years of life rate among Ontario sub-regions.

### Challenges/Opportunities

- Among the 8 sub-regions with the highest hospitalization rates for ischemic heart disease.

## OAKVILLE SUB-REGION HIGHLIGHTS

### Population Characteristics

- 2<sup>nd</sup> lowest percentage of residents with less than high school.
- 4<sup>th</sup> lowest percentage of residents with only high school completion.
- 5<sup>th</sup> highest percentage of residents with bachelor's degree completion and beyond.
- Women in **Oakville** had the 4<sup>th</sup> highest mean age at the birth of their first infant in the province.
- **Highest** (tied with **North York Central**) overall age of mothers giving birth in the province.
- **Lowest** fertility rate in the province.
- 2<sup>nd</sup> lowest percentage of patients with two or more acute inpatient admissions in the last 30 days of life.
- 5<sup>th</sup> lowest percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days.
- 6<sup>th</sup> lowest percentage of patients who receive palliative care who died in hospital in 2016/17 (tied with **Chatham City Centre**).
- Among the lowest acute separation rates from acute hospital beds in 2016/17.

### Strengths

- 7<sup>th</sup> lowest percentage of dwellings in need of major repairs.
- 4<sup>th</sup> lowest stillbirth rate in the province.
- **Significantly lower** prevalence rate for asthma than Ontario's. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- Among the 8 sub-regions with the lowest hospitalization rates for cerebrovascular disease, for lower respiratory disease, and for stroke.
- Among the 8 sub-regions with the lowest mean cost per healthcare user.
- 5<sup>th</sup> lowest all-cause potential years of life lost rate.
- **Lowest** percentage of residents who went to ED for something that could have been treated by a primary care provider.

### Challenges/Opportunities

- **Oakville** was not significantly different from the rest of Ontario in any areas of challenge or opportunity.

## NORTH WEST MISSISSAUGA SUB-REGION HIGHLIGHTS

### Population Characteristics

- 4<sup>th</sup> lowest percentage of population aged 65+.
- 4<sup>th</sup> lowest percentage of population aged 75+.
- 3<sup>rd</sup> lowest percentage of people age 65+ living alone.
- 7<sup>th</sup> lowest dependency ratio.
- 5<sup>th</sup> highest percentage of residents who were immigrants.
- 6<sup>th</sup> highest percentage of residents who were recent immigrants. The country of origin for the largest proportion of recent immigrants was Pakistan.
- 7<sup>th</sup> highest proportion of residents who were first generation Canadian.
- 6<sup>th</sup> highest proportion of residents who were visible minorities.
- 5<sup>th</sup> lowest proportion of residents reporting Aboriginal identity.
- 7<sup>th</sup> highest percentage of residents with bachelor's degree completion and beyond.
- North West Mississauga and Oakville tied for the 2<sup>nd</sup> lowest fertility rate among teenagers in the province.
- 6<sup>th</sup> lowest fertility rate in the province.
- Among the eight lowest sub-regions in total home service visit rates in 2017/18.
- Among the eight highest sub-regions in nursing visit rates in 2017/18.
- Residents of North West Mississauga had the 4<sup>th</sup> lowest mental health active case rate.
- Among the lowest acute separation rates from acute hospital beds in 2016/17.
- Among the lowest rates of acute care days per 1,000 residents in 2016/17.
- 7<sup>th</sup> lowest CCC active case rate.

### Strengths

- 4<sup>th</sup> lowest percentage of dwellings in need of major repairs (3.1%).
- 8<sup>th</sup> lowest stillbirth rate in the province.
- 3<sup>rd</sup> lowest large for gestational age rate in the province.
- Among the 8 sub-regions with the lowest hospitalization rates for cerebrovascular disease, chronic obstructive pulmonary disease, and stroke.
- Among the 8 sub-regions with the lowest mean cost per healthcare user.
- Among the 8 sub-regions with the lowest percentage of complex patients (4+ conditions).
- Among the 8 sub-regions with the lowest percentage of high cost healthcare users.
- Among the lowest Ontario sub-regions for the rate of acute days.
- **Lowest** all-cause mortality rate per 100,000 population in Ontario.
- 3<sup>rd</sup> lowest all-cause potential years of life lost rate.
- North West Mississauga residents had the 3<sup>rd</sup> lowest ED visit rates for MH/SA conditions.

### Challenges/Opportunities

- 2<sup>nd</sup> highest small for gestational age rate in the province.
- 8<sup>th</sup> highest percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days.
- At the end of 2017/18, residents of North West Mississauga had been waiting the 4<sup>th</sup> longest for discharge from an ALC designation in hospital (open cases).

## SOUTH WEST MISSISSAUGA SUB-REGION HIGHLIGHTS

### Population Characteristics

- According to the census, South West Mississauga had the 4<sup>th</sup> greatest decrease in population between 2011 and 2016, with population growth of -2.0%.
- 5<sup>th</sup> highest multiple live birth rate (tied with West Toronto and Essex South Shore) in the province.
- 3<sup>rd</sup> lowest fertility rate in the province.
- Among the longest acute length of stay in acute hospital beds in 2016/17.
- Among the lowest acute separation rates from acute hospital beds in 2016/17.

### Strengths

- North West Mississauga residents had the 8<sup>th</sup> lowest ED visit rates for MH/SA conditions.
- Among the 8 sub-regions with the lowest hospitalization rates for cardiovascular disease, cerebrovascular disease, chronic obstructive pulmonary disease, lower respiratory disease, respiratory disease, and for stroke.

### Challenges/Opportunities

- 4<sup>th</sup> highest stillbirth rate in the province.
- 7<sup>th</sup> highest percentage of residents who went to a walk in clinic for something that could have been treated by a primary care provider if they were available.
- Among the 8 sub-regions with the highest acute length of stay.

## SOUTH ETOBICOKE SUB-REGION HIGHLIGHTS

### Population Characteristics

- 8<sup>th</sup> lowest dependency ratio.
- Mothers in **South Etobicoke** had the 8<sup>th</sup> highest mean age at the birth of their first infant in the province.
- 7<sup>th</sup> highest (tied with **East Toronto**) overall age of mothers giving birth in the province.
- Among the highest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- Among the longest acute length of stay in acute hospital beds in 2016/17.
- 8<sup>th</sup> highest rehabilitation admission rate per 100,000 population in FY16/17.

### Strengths

- 3<sup>rd</sup> lowest full-term low birth weight rate in the province.
- **Significantly lower** prevalence rate of arthritis than Ontario's. *Note: The reported rate had high sampling variability; the rate must be used with caution.*

### Challenges/Opportunities

- 7<sup>th</sup> highest stillbirth rate in the province.
- Among the 8 sub-regions with the highest acute length of stay.
- Among the 8 sub-regions with the highest total length of stay in Ontario.
- 8<sup>th</sup> highest inpatient rehabilitation admission rate in the province.

## Population Characteristics

### Population Estimates<sup>2</sup>

- As of 2016, the population of the Mississauga Halton LHIN is estimated to be 1,263,117, a 10.2% increase over 2011.
  - The populations 65 and over and 75 and over represent 14% and 6% of the total population respectively.
- Mississauga Halton had the **largest** population increase in the province between 2011 and 2016.
- The population of the Mississauga Halton LHIN is projected to increase by 10.2% by 2021 and by 19.5% by 2026.

### Population Estimates from 2016 Census and Ministry of Finance

	Ontario	Mississauga Halton	Comments†
2011 Census, total population	12,851,821	1,108,373	
2016 Census, total population	13,448,494	1,164,755	
Population growth between 2011 and 2016 (based on Census)	4.6%	5.1%	6 <sup>th</sup> lowest
Estimated population, 2011	13,263,544	1,145,981	
<b>Estimated population, 2016</b>	<b>13,982,984</b>	<b>1,263,117</b>	
% population age 65+	16.38%	13.53%	2 <sup>nd</sup> lowest
% population age 75+	7.17%	5.74%	2 <sup>nd</sup> lowest
<b>% population change estimated 2011-2016</b>	<b>5.4%</b>	<b>10.2%</b>	<b>Highest</b>
Projected population, 2021	14,980,422	1,391,720	
Projected population, 2026	15,822,463	1,509,640	
% changes (based on changes from the 2016 estimates)			
% population change forecasted 2016-2021	7.1%	10.2%	
% population change forecasted 2016-2026	13.2%	19.5%	

Sub-Region Name	Total population	Age 65plus	% 65+	Age 75plus	% 75+
<b>East Mississauga</b>	322,438	51,435	15.95%	21,996	6.82%
<b>Halton Hills</b>	66,759	8,881	13.30%	3,539	5.30%
<b>Milton</b>	94,348	8,203	8.69%	3,020	3.20%
<b>Oakville</b>	207,268	29,542	14.25%	13,039	6.29%
<b>North West Mississauga</b>	290,436	27,904	9.61%	10,744	3.70%
<b>South West Mississauga</b>	158,140	26,139	16.53%	11,077	7.00%
<b>South Etobicoke</b>	123,728	18,848	15.23%	9,056	7.32%

<sup>2</sup> Please see note in Ontario chapter on Census versus Ministry of Finance estimates.



### Census Demographics

- 17.7% of the population was in the age group 0-14 and 68.2% was in the age group 15-64.
- The dependency ratio in Mississauga Halton at 62.6 was lower than the province (64.5).
- The largest proportion of Mississauga Halton's population (94.0%) lived in large urban communities.
- 4.4% of Mississauga Halton's population lived in medium/small population centre communities.
- 1.6% of Mississauga Halton's population lived in rural or small communities adjacent to urban areas communities.
- None of Mississauga Halton's population live in rural and small towns.
- Mississauga Halton's land mass measures 1,054 square kilometres making it the 2<sup>nd</sup> smallest in the province.
- Mississauga Halton's population density was 1104.6 persons per square kilometre making it the 2<sup>nd</sup> most densely populated LHIN in the province.

### Households

- In 2016, 230,665 families with children were living within the boundaries of the Mississauga Halton LHIN. 22.4% of those families were lone parent.
  - By sub-region, **South Etobicoke** had the highest rate of lone-parent families (29.6%) and **Milton** had the lowest (16.1%).
- In 2016, 155,420 households contained one or more family members aged 65 years and over. 18.5% of those individuals were living alone.
  - By sub-region, **South Etobicoke** had the highest rate of seniors living alone (25.3%) and **North West Mississauga** had the lowest (11.7%).
  - By sub-region and household size, **South Etobicoke** had the highest rate of one person households (29.0%) and **North West Mississauga** had the lowest (11.6%)
  - By sub-region and household size, **North West Mississauga** had the highest rate of 5 or more person households (20.8%) and **South Etobicoke** had the lowest (6.9%).
- The total number of owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio was 395,535. 28.8% of those households spent 30% or more of their income on rent or payments.
  - By sub-region, **East Mississauga** had the highest rate (35.5%) and **Halton Hills** had the lowest (18.8%).
- The total number of private households was 398,520. 75.2% of those were owner occupied and 24.8% were rented.
  - By sub-region and owner occupation rate, **Milton** had the highest rate (85.9%) with **East Mississauga** having the lowest (63.0%).
- 4.5% of the private households in Mississauga Halton were in need of major repair. This was the **lowest** percentage in the province.
  - By sub-region and housing in need of repair rate, **South Etobicoke** had the highest rate (6.9%) and **Milton** had the lowest (2.6%).
- 7.8% of the private households in the Central West LHIN had an insufficient number of bedrooms to accommodate the household makeup.
  - By sub-region and housing suitability, **East Mississauga** had the highest rate of unsuitable housing (12.6%) and **Halton Hills** had the lowest (2.8%).

## Language

- In 2016, 57.7% of the population reported English as their mother tongue and 1.8% of the LHIN's population reported French as their mother tongue.
  - By sub-region, **Halton Hills** had the highest proportion (85.4%) and **East Mississauga** had the lowest proportion of residents who identified English as their mother tongue (47.2%).
  - By sub-region, **Oakville** had the highest proportion (2.3%) and **East Mississauga** had the lowest proportion of residents who identified French as their mother tongue (1.5%).
- In 2016, 2.3% of Mississauga Halton LHIN residents were Francophone under the 2009 new Inclusive Definition of Francophone.
  - By sub-region, **Oakville** had the highest proportion of Francophone residents (2.8%) and **East Mississauga** had the lowest (2.1%).
- 2.8% of the LHIN's population reported no knowledge of either official language.
  - By sub-region, **East Mississauga** reported the highest proportion of residents with no knowledge of English or French (4.2%) and **Halton Hills** had the lowest (0.6%).
- 67.8% of Mississauga Halton LHIN residents reported English as the most common language spoken at home, followed by English and a non-official language (9.8%), Urdu (2.4%), Mandarin (2.2%) and Arabic (1.8%).

## Income

- In the Mississauga Halton LHIN, 12.4% of the population lived on low income, based on the after-tax low income measure (LIM-AT).
  - The proportion of residents living below the low income measure varied by sub-region, from 5.2% in the **Halton Hills** sub-region to 18.0% in the **East Mississauga** sub-region.
  - The proportion of households in the lowest income quintile ranged across sub-regions in the Mississauga Halton LHIN, from 8.0% in the **Halton Hills** sub-region to 23.5% in the **East Mississauga** sub-region.
- In the Mississauga Halton LHIN, 17.0% of children under the age of 6 lived in low income households.
  - By sub-region, children living in low income households ranged from 5.3% in the **Halton Hills** sub-region to 28.0% in the **East Mississauga** sub-region.
- The proportion of households in the highest income quintile varied across sub-regions in the Mississauga Halton LHIN, from 18.8% in the **East Mississauga** sub-region to 42.8% in the **Oakville** sub-region.

## Immigration

- In 2016, immigrants accounted for 45.4% of the Mississauga Halton LHIN population, the third highest proportion in the province. From 1980 to 2016, 57.7% of immigrants were admitted as economic immigrants, 27.8% were sponsored by family and 13.5% were admitted as refugees. 6.1% of Mississauga Halton LHIN residents were **recent immigrants**, having arrived in Canada between 2011 and 2016. Of the recent immigrants, the highest proportion came from India (14.8%), followed by Pakistan (13.0%) and China (8.7%).
  - Among the seven Mississauga Halton LHIN sub-regions, the percentage of immigrants ranged from 16.2% in **Halton Hills** to 55.6% in **East Mississauga**.
  - The percentage of recent immigrants ranged from 0.9% in **Halton Hills** to 8.5% in **East Mississauga**.
- In 2016, 47.5% of the Mississauga Halton LHIN population were **first generation Canadians**, the third highest proportion in the province.
  - Among the seven Mississauga Halton LHIN sub-regions, the percentage of first generation Canadians ranged from 16.9% in **Halton Hills** to 58.6% in **East Mississauga**.

### Visible Minorities

- In 2016, 45.2% of the Mississauga Halton LHIN population was a visible minority, the third highest proportion in the province.
  - Among the seven Mississauga Halton LHIN sub-regions, the percentage of visible minorities ranged from 7.4% in [Halton Hills](#) to 66.3% in [North West Mississauga](#).

### Indigenous (Aboriginal) Identity

- 0.7% of the Mississauga Halton LHIN's residents identified as Aboriginal (the second lowest proportion in the province), with 0.4% identifying as First Nations and 0.3% as Métis.
  - Among the seven Mississauga Halton LHIN sub-regions, the percentage of residents reporting Aboriginal identity ranged from 0.5% in [North West Mississauga](#) to 1.7% in [Halton Hills](#).

### Education

- In 2016, 43.3% of residents of the Mississauga Halton LHIN of working age had completed post-secondary education, ranking 2<sup>nd</sup> across the province.
  - Across Mississauga Halton sub-regions, the percentage of the population with less than high school ranged from 4.1% in [Oakville](#) to 9.6% in [East Mississauga](#).
  - The percentage of the population with high school completion ranged from 16.6% in [Oakville](#) to 26.6% in [Halton Hills](#).
  - The percentage of the population with post-secondary education below bachelor's degree ranged from 26.4% in [Oakville](#) to 37.4% in [Halton Hills](#).
  - The percentage of the population with bachelor's degree completion and beyond ranged from 27.8% in [Halton Hills](#) to 53.0% in [Oakville](#).

### Labour Force Participation

- In 2016, the labour force participation rate for those 15+ in Mississauga Halton LHIN was 68%, the 3<sup>rd</sup> highest of all the LHINs, while the unemployment rate was 7.5%.
- Of those employed in 2016, 53% of Mississauga Halton LHIN residents had a commute time from their residence to their place of work of 30 minutes or more, while 28.7% had a commute time of 45 minutes or more.

## 2016 Census Profile

	Ontario	Mississauga Halton	Comments†
<b>Census Population 2016</b>			
Dependency ratio (number of "dependents" for every 100 "workers")	64.5	62.6	2 <sup>nd</sup> lowest
<b>Urban-Rural Gradient</b>			
% large urban	68.1%	94.0%	2 <sup>nd</sup> highest
% medium/small population centre	14.7%	4.4%	2 <sup>nd</sup> lowest
% rural or small communities adjacent to urban areas	8.4%	1.6%	2 <sup>nd</sup> lowest
% rural and small town	8.8%	0.0%	<b>Lowest</b> (tied)
Land Area (sq km)	908,699	1,054	2 <sup>nd</sup> lowest
Population Density (persons per square kilometre)	14.8	1104.6	2 <sup>nd</sup> highest
<b>Population by Household and Families</b>			
% of people age 65+ living alone	23.5%	18.5%	
% of dwellings in need of major repairs	6.1%	4.5%	<b>Lowest</b>
% of households with an insufficient # of bedrooms	6.0%	7.8%	
<b>Language</b>			
% who report English as their mother tongue	69.5%	57.7%	
% who report French as their mother tongue	4.3%	1.8%	
% with no knowledge of English or French	2.5%	2.8%	
% Francophone (IDF)	4.7%	2.3%	
<b>Population (in Private Households) Living in Low Income</b>			
% Population living below low-income measure (LIM-AT)	14.4%	12.4%	
% Children living in low income households/LIM (age<6)	19.8%	17.0%	2 <sup>nd</sup> lowest
% Children living in low income households/LIM (age<18)	18.4%	16.8%	
% Seniors living in low income households/LIM (age 65+)	12.0%	10.4%	
<b>Immigration</b>			
% of population who are immigrants	29.1%	45.4%	
% of population who arrived within 5 years	3.6%	6.1%	
% first generation Canadian (children of immigrants)	31.1%	47.5%	
<b>Visible Minorities</b>			
% of population who are visible minorities	29.3%	45.2%	
<b>Indigenous Identity</b>			
% of population of Aboriginal identity	2.8%	0.7%	2 <sup>nd</sup> lowest
% population First Nations identity	1.8%	0.4%	
% population Metis identity	0.9%	0.3%	
% population Inuk identity	0.0%	0.0%	
% Multiple Aboriginal responses	0.0%	0.0%	
% Aboriginal responses not included elsewhere	0.1%	0.0%	
<b>Educational Attainment</b>			
% Population age 25-64 with less than high school	10.4%	7.1%	<b>Lowest</b>
% Population age 25-64 with high school completion	24.5%	20.6%	2 <sup>nd</sup> lowest
% Population age 25-64 with post-secondary education below bachelor's degree	33.2%	29.0%	
% Population age 25-64 with bachelor's degree completion and beyond	31.9%	43.3%	2 <sup>nd</sup> highest
<b>Labour Force Activity</b>			
% In the labour force (Participation rate)	64.7%	67.8%	
% Unemployed	7.4%	7.5%	
% 60 minutes and over commuting duration	12.4%	16.5%	

†Highest/lowest ranking in the province, compared to other LHINs.

## Sub-Region Profiles, 2016 Census

Sub-Region	East Mississauga	Halton Hills	Milton	Oakville	North West Mississauga	South West Mississauga	South Etobicoke
<b>Census Population 2016</b>							
Dependency ratio (number of "dependents" for every 100 "workers")	59.5	65.6	68.9	69.7	58.7	64.4	58.9
<b>Urban-Rural Gradient</b>							
% large urban	100.0%	0.0%	92.4%	99.8%	100.0%	100.0%	100.0%
% medium/small population centre	0.0%	84.3%	0.0%	0.0%	0.0%	0.0%	0.0%
% rural or small communities adjacent to urban areas	0.0%	15.7%	7.6%	0.2%	0.0%	0.0%	0.0%
% rural and small town	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Land Area (sq km)	87	276	363	139	81	66	42
Population Density (persons per square kilometre)	3,252.6	221.4	303.2	1,395.6	3,253.1	2,045.7	2,798.2
<b>Population by Household and Families</b>							
% of people age 65+ living alone	19.9%	21.7%	14.9%	19.7%	11.7%	17.1%	25.3%
% Of dwellings in need of major repairs	5.1%	4.4%	2.6%	3.4%	3.1%	5.6%	6.9%
% of households with an insufficient # of bedrooms	12.6%	2.8%	4.5%	3.4%	7.8%	6.9%	8.8%
<b>Language</b>							
% who report English as their mother tongue	47.2%	85.4%	66.6%	67.1%	50.6%	60.9%	57.2%
% who report French as their mother tongue	1.5%	2.2%	1.9%	2.3%	1.6%	1.7%	1.6%
% with no knowledge of English or French	4.2%	0.6%	1.5%	1.7%	3.2%	2.4%	2.6%
% Francophone	2.1%	2.3%	2.3%	2.8%	2.2%	2.2%	2.2%
<b>Population (in Private Households) Living in Low Income</b>							
% Population living below low-income measure (LIM-AT)	18.0%	5.2%	8.7%	9.7%	11.5%	12.4%	13.0%
% Children living in low income households/LIM (age<6)	28.0%	5.3%	9.3%	11.2%	16.3%	19.2%	17.4%
% Children living in low income households/LIM (age<18)	26.4%	5.9%	11.0%	12.4%	16.5%	18.4%	17.5%
% seniors living in low income households/LIM (age 65+)	14.2%	7.2%	7.8%	7.4%	10.1%	8.6%	11.0%
<b>Population by Income Quintiles</b>							
% Economic families in Income quintile 1 - lowest income	23.5%	8.0%	11.9%	12.7%	15.4%	16.9%	17.5%
% Economic families in Income quintile 2	19.5%	12.9%	16.1%	11.0%	16.1%	16.0%	16.3%
% Economic families in Income quintile 3	19.0%	18.1%	20.9%	13.8%	19.7%	17.1%	17.4%
% Economic families in Income quintile 4	19.2%	26.0%	25.3%	19.6%	23.4%	20.1%	20.5%
% Economic families in Income quintile 5 - highest income	18.8%	35.0%	25.7%	42.8%	25.4%	29.9%	28.1%

Sub-Region	East Mississauga	Halton Hills	Milton	Oakville	North West Mississauga	South West Mississauga	South Etobicoke
<b>Immigration</b>							
% of population who are immigrants	55.6%	16.2%	35.9%	35.9%	55.2%	42.8%	41.2%
% of population who arrived within 5 years	8.5%	0.9%	5.2%	5.3%	7.3%	4.6%	4.4%
% first generation Canadian (children of immigrants)	58.6%	16.9%	37.2%	38.2%	56.9%	44.7%	43.4%
<b>Visible Minorities</b>							
% of population who are visible minorities	53.0%	7.4%	42.8%	30.8%	66.3%	40.6%	29.1%
<b>Indigenous Identity</b>							
% of population of Aboriginal identity	0.6%	1.7%	1.0%	0.7%	0.5%	0.9%	0.8%
% population First Nations identity	0.3%	0.9%	0.5%	0.4%	0.2%	0.4%	0.5%
% population Metis identity	0.2%	0.6%	0.3%	0.3%	0.2%	0.4%	0.3%
% population Inuk identity	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
% Multiple Aboriginal responses	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Aboriginal responses not included elsewhere	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
<b>Educational attainment</b>							
% Population age 25-64 with less than high school	9.6%	8.2%	5.5%	4.1%	6.6%	7.4%	7.4%
% Population age 25-64 with high school completion	22.6%	26.6%	20.5%	16.6%	19.4%	21.6%	20.6%
% Population age 25-64 with post-secondary education below bachelor's degree	29.0%	37.4%	32.2%	26.4%	26.7%	30.7%	29.0%
% Population age 25-64 with bachelor's degree completion and beyond	38.8%	27.8%	41.8%	53.0%	47.2%	40.2%	43.1%
<b>Labour Force Activity</b>							
% In the labour force (Participation rate)	64.7%	73.3%	74.2%	68.2%	69.1%	65.7%	66.5%
% Unemployed	8.5%	5.2%	5.6%	6.9%	8.1%	8.0%	7.0%
% 60 minutes and over commuting duration	15.4%	13.9%	18.6%	18.3%	16.8%	15.4%	16.3%

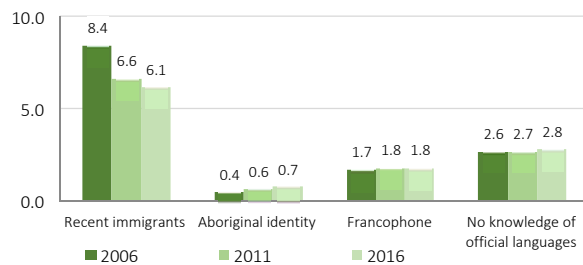
## Mississauga Halton

### 2016 Census Profile Summary

#### Number of private dwellings

2006	350,976
2011	384,491
2016	410,645

#### Immigration, identity and language (% of population)

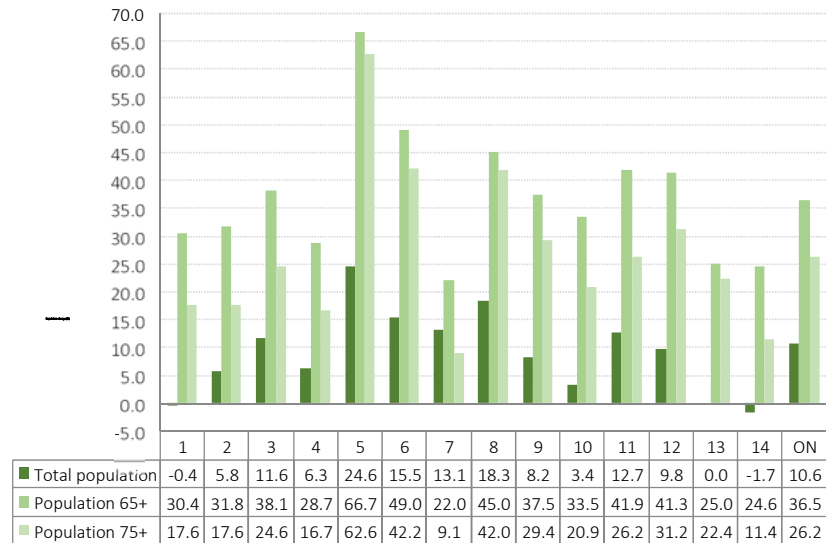


#### Population change (2006-2016)

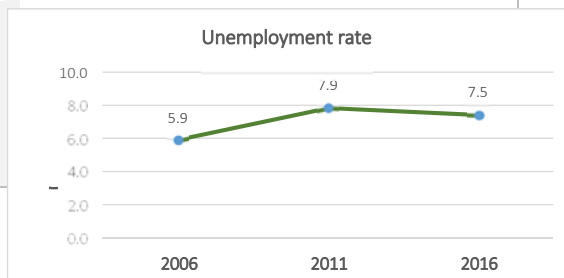
The growth of the senior (65+) population across LHINs ranged from 67% in Central West to 22% in Toronto Central.

The growth of the population age 75+ in Mississauga Halton between 2006 and 2016 was 42.2%, compared to 26.2% for the province as a whole. Total LHIN population growth was 15.5% for the same period.

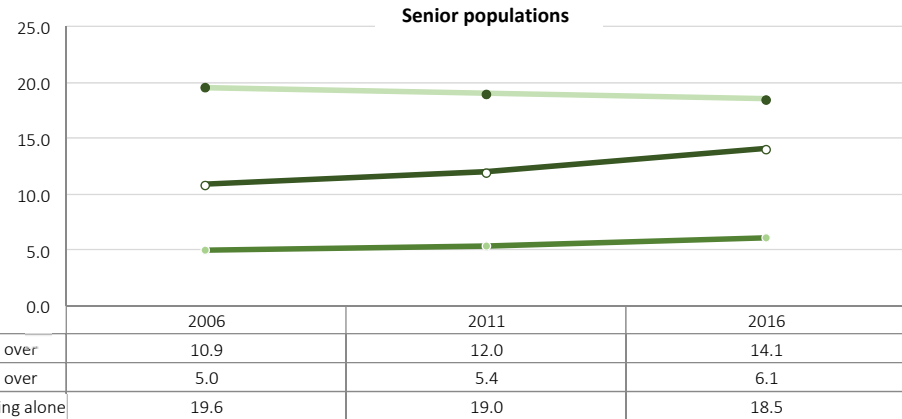
#### Population change, 2006 to 2016, by LHIN



#### Change in unemployment rate, 2006 to 2016 = 26.1%



○ % population age 65 and over  
 ● % population age 75 and over  
 ● % population age 65+ living alone



## Births and Mortality

### Births and Maternal Age

- In FY 2016/17, there were 11,714 pregnancies and 11,912 births to Mississauga Halton women. 98% of births took place in a hospital; the remaining 2% were in the home, birth centre or other (including nursing stations, births outside of Ontario and other Ontario locations).
- In 2016, Mississauga Halton's crude birth rate (per 1,000) was 9.2.
  - By sub-region, **Milton** had the 3<sup>rd</sup> highest rate in the province (18.4) and **Oakville** and **South West Mississauga** had the 5<sup>th</sup> and 7<sup>th</sup> lowest rates in the province (7.3 and 7.4, respectively).
- The fertility rate per 1,000 Mississauga Halton females of reproductive age (15 to 49) was 36.3, the **lowest** rate in the province.
  - By sub-region, **Milton** had the 3<sup>rd</sup> highest rate in the province (68.1) and **Oakville**, **Halton Hills**, **South West Mississauga** and **North West Mississauga** had the lowest, 2<sup>nd</sup>, 3<sup>rd</sup> and 6<sup>th</sup> lowest rates in the province (30.0, 31.5, 31.8 and 33.9, respectively).
- For teenagers (15 to 19), the fertility rate per 1,000 Mississauga Halton females was 1.6, the **lowest** in the province.
  - By sub-region, **North West Mississauga** and **Oakville** tied for the 2<sup>nd</sup> lowest fertility rate among teenagers in the province (0.8).
- In FY2016, 0.6% of women who gave birth were under 20 years of age, the **lowest** proportion in the province. 29.8% of women were 35 years or older, the 2<sup>nd</sup> highest in the province.
- The overall mean age of mothers giving birth in this LHIN was 32.1, the 2<sup>nd</sup> highest age in the province.
  - By sub-region, **Oakville** and **South Etobicoke** had the highest and 7<sup>th</sup> highest (tied with **North York Central** and **East Toronto**) overall age of mothers giving birth in the province (33.2 and 32.4, respectively).
- In 2016, the stillbirth rate per 1,000 live births in Mississauga Halton was 7.0.
  - By sub-region, **South West Mississauga** and **South Etobicoke** had the 4<sup>th</sup> and 7<sup>th</sup> highest stillbirth rates in the province (12.1 and 11.1, respectively). **Oakville** and **North West Mississauga** had the 4<sup>th</sup> (5.3) and 8<sup>th</sup> (5.7) lowest rates in the province.

### Multiple Births

- The multiple live birth rate per 100 live births in 2016 was 3.5.
  - By sub-region, **South West Mississauga** had the 5<sup>th</sup> highest multiple live birth rate (tied with **West Toronto** and **Essex South Shore**) in the province (4.3).

### Pre-Term Births

- In 2016, the pre-term birth rate per 100 live births was 7.5.
  - By sub-region, **Milton** had the 5<sup>th</sup> lowest pre-term birth rate in the province (5.9 per 100 births).
- The low birth weight rate per 100 live births in Mississauga Halton was 6.9.
  - By sub-region, **East Mississauga** had the 7<sup>th</sup> highest low birth weight rate in the province (8.0).

### Size for Gestational Age and Birth Weight

- In 2016, the small for gestational age rate per 100 live births was 11.0, the 3<sup>rd</sup> highest rate in the province.
  - By sub-region, **North West Mississauga** had the 2<sup>nd</sup> highest small for gestational age rate in the province (14.4).
- In 2016, the large for gestational age rate per 100 live births was 7.9.
  - By sub-region, **North West Mississauga** and **East Mississauga** had the 3<sup>rd</sup> and 7<sup>th</sup> lowest large for gestational age rate in the province (6.2 and 6.6, respectively).



#### Attendants, Assisted Delivery & Epidural Anaesthesia during Labour

- In Mississauga Halton, 90.9% of hospital births were attended by an obstetrician, the **highest** proportion in the province. 3.1% were attended by a family doctor (2<sup>nd</sup> lowest), 5.5% by a midwife and 0.5% were attended by a health care provider other than an obstetrician, family doctor or midwife (the **lowest** proportion in the province).
- Among vaginal deliveries, the overall assisted delivery rate for Mississauga Halton women was 12.3. The assisted delivery rate using vacuum extraction was 10.3. Assisted delivery rate using forceps was 1.7, the 2<sup>nd</sup> lowest rate in the province.
- The epidural rate for vaginal deliveries was 63.7. Epidural rate for all deliveries was 52.9.

#### Caesarean Deliveries

- In FY 2016/17, the total Caesarean section rate per 100 deliveries was 28.2.
- The rate of primary Caesarean section rate (the mother's first Caesarean, regardless if she had given birth vaginally before) was 18.1 per 100 deliveries. Primary Caesarean section rate was lower in women under 35 years of age (16.8) compared to those 35 and over (21.6).
- The rate of repeat Caesarean sections in Mississauga Halton was 83.4 per 100 deliveries.

#### Breastfeeding

- The rate of exclusive breastfeeding at discharge among term live births in this LHIN was 64.9%.

## Births and Maternal Outcomes, Ontario

	Mississauga Halton	Ontario	Comments <sup>†</sup>
Total births in Ontario, LHIN of maternal residence	11,912	141,163	
Hospital	11,672	136,505	
Home	225	3,813	
Birth Centre	<6	572	
Crude birth rate (per 1,000 population)	9.2	9.8	3 <sup>rd</sup> lowest
Stillbirth rate (per 1,000 live births)	7.0	8.1	3 <sup>rd</sup> lowest
Multiple live birth rate (per 100 live births)	3.5	3.3	
Rate of preterm birth (<37 weeks) (%) <sup>*</sup>	7.3%	8.2%	2 <sup>nd</sup> lowest
Preterm birth rate (per 100 live births) <sup>**</sup>	7.5	8.1	3 <sup>rd</sup> lowest
Total pregnancies in Ontario, LHIN of maternal residence	11,714	138,781	
Fertility rate (per 1,000 females of reproductive age)			
Overall rate (15 to 49)	36.3	41.2	Lowest
Teen rate (15 to 19)	1.6	6.3	Lowest
Distribution of maternal age (%)			
<20	0.6%	1.9%	Lowest
≥ 35	29.8%	23.8%	2 <sup>nd</sup> highest
Mean age of mother at birth of first infant	30.6	29.3	2 <sup>nd</sup> highest
Overall mean age of mother at birth	32.1	30.7	2 <sup>nd</sup> highest
Rate of Caesarean delivery (%), LHIN of hospital	27.1%	28.4%	
Total Caesarean Section Rate	28.2	28.4	
Primary Caesarean Section Rate, LHIN of patient	18.1	19.0	
Primary C-Section Rate (< 35 years)	16.8	17.9	
Primary C-Section Rate (≥ 35 years)	21.6	22.9	
Repeat Caesarean Section Rate	83.4	82.7	
Epidural Rate for Vaginal Deliveries	63.7	60.3	
Epidural Rate for All Deliveries	52.9	51.0	
Assisted Delivery Rate Among Vaginal Deliveries			
Overall	12.3	12.3	
Vacuum Extraction	10.3	9.1	
Forceps	1.7	2.8	2 <sup>nd</sup> lowest
Healthcare provider who caught the baby for hospital births (%), LHIN of hospital			
Obstetrician	90.9%	78.8%	Highest
Family doctor	3.1%	7.4%	2 <sup>nd</sup> lowest
Midwife	5.5%	7.4%	3 <sup>rd</sup> lowest
Other	0.5%	6.4%	Lowest
Low birth weight rate (per 100 live births)	6.9	6.8	
Fullterm low birth weight rate (per 100 live births)	2.0	2.0	
Births small for gestational age (%) <sup>*</sup>	11.1%	9.7%	2 <sup>nd</sup> highest
Small for gestational age (per 100 live births) <sup>**</sup>	11.0	9.6	3 <sup>rd</sup> highest
Births large for gestational age (%) <sup>*</sup>	7.6%	9.7%	
Large for gestational age (per 100 live births) <sup>**</sup>	7.9	9.8	
Rate of exclusive breastfeeding among term live hospital births (%), LHIN of maternal residence	64.9%	62.8%	

<sup>†</sup> Ranking in the province compared to other LHINs.

<sup>\*</sup> As reported by BORN Ontario

<sup>\*\*</sup> As reported by Public Health Ontario

### Maternal smoking, alcohol and drug use during pregnancy among all women who live in Ontario and who had a live birth or stillbirth (LHIN of maternal residence), 2016/17 (BORN)

- In Mississauga Halton, the rate of women who self-identified as non-smokers at first prenatal visit was 96.2%, the 3<sup>rd</sup> highest proportion in the province. At the time of labour, 97.4% were non-smokers.
  - The prevalence of smoking 1-10 cigarettes and 10+ cigarettes at the first prenatal visit was 2.6% and 1.0%, respectively.
- 1.5% of the women reported drinking alcohol, the 3<sup>rd</sup> lowest proportion in the province. 0.9% reported using drugs during pregnancy, the 2<sup>nd</sup> lowest proportion in the province.

	Mississauga Halton	Ontario	Comments <sup>†</sup>
<b>Maternal smoking at first prenatal visit (%) LHIN of maternal residence<sup>‡</sup></b>			
% women who reported smoking (0) cigarettes/day	96.2%	90.7%	
% women who reported smoking (1 – 10) cigarettes/day	2.6%	5.5%	
% women who reported smoking (10+) cigarettes/day	1.0%	3.2%	
<b>Maternal smoking at time of labour (%)</b>			
% women who reported smoking (0) cigarettes/day	97.4%	92.5%	
% women who reported smoking (1 – 10) cigarettes/day	1.8%	4.6%	
% women who reported smoking (10+) cigarettes/day	0.7%	2.6%	
Alcohol consumption during pregnancy (%)	1.5%	2.6%	
Drug and substance exposure during pregnancy (%)	0.9%	2.3%	2 <sup>nd</sup> lowest

<sup>†</sup>Ranking in the province compared to other LHINs.

### Life Expectancy

- Life expectancy at birth for both males and females in 2012-2014 was 84 years. By sex, life expectancy at birth for males in Mississauga Halton LHIN was 82 years, and 86 years for females.
- Life expectancy at age 65 for both sexes from 2012-2014 was 22 years. By sex, life expectancy at age 65 for males in Mississauga Halton was 21 years, and 23 years for females.

	Mississauga Halton LHIN	Ontario	Rank among LHINs <sup>†</sup>
<b>Life Expectancy</b>			
<b>Life expectancy at birth- Both Sexes 2012-14</b>	84.2	82.3	
<b>Life expectancy at birth- Male 2012-14</b>	82.4	80.2	
<b>Life expectancy at birth- Female 2012-14</b>	85.9	84.3	
<b>Life expectancy at age 65- Both Sexes 2012-14</b>	22.0	20.9	
<b>Life expectancy at age 65- Male 2012-14</b>	20.5	19.3	
<b>Life expectancy at age 65- Female 2012-14</b>	23.3	22.2	

<sup>†</sup>Ranking in the province compared to other LHINs (highest and lowest 2).

### Mortality and Potential Years of Life Lost

- In 2012, 5,375 Mississauga Halton LHIN residents died.
- The all-cause mortality rate for LHIN residents was 460 per 100,000 population in 2012.
  - By sub-region, **North West Mississauga** had the **lowest** all-cause mortality rate per 100,000 population in Ontario (297) and **Milton** sub-region had the 3<sup>rd</sup> lowest in Ontario (336).
- Ischaemic heart disease was the leading cause of death in Mississauga Halton LHIN, followed by Dementia and Alzheimer's disease and Cancer of lung and bronchus.
- 33,430 years of potential life were lost by LHIN residents in 2012.
- The LHIN's potentially years of life lost (PYLL) rate for 2012 was 3,013 per 100,000 population aged less than 75. Since 2007, the PYLL rate increased by 8.8% for LHIN residents.
  - By sub-region, **North West Mississauga** LHIN had the 3<sup>rd</sup> lowest all-cause PYLL rate per 100,000 population (2,659). **Milton** sub-region had the 4<sup>th</sup> lowest (2,726) and **Oakville** sub-region had the 5<sup>th</sup> lowest (3,005).
- The leading causes of PYLL in 2012 were Ischaemic heart disease, perinatal conditions and cancer of lung and bronchus. Mississauga Halton LHIN had the **lowest** PYLL rate per 100,000 for Ischaemic heart disease in the province (267).

## Mortality and Potential Years of Life Lost

	Mississauga Halton LHIN	Ontario	Rank among LHINs†	Range across MH sub-regions (2010-2012)
<b>Mortality, 2012</b>				
<b>Total deaths, 2012</b>	5,375	90,525		313-1,405
<b>% change in total deaths (2007-2012)</b>	10.9%	4.1%		NA
<b>All-cause mortality rate per 100,000 population</b>	459.7	674.9	2 <sup>nd</sup> lowest	297.2-777.1
<b>% change in all-cause mortality rate (2007-2012)</b>	2.6%	-0.7%		NA
<b>% of deaths that were premature (age &lt; 75)</b>	37.0%	37.3%		27.6%-43.4%
<b>Top 10 leading causes of death, 2012 (rates per 100,000 population)<sup>3</sup></b>				
Ischaemic heart disease	54.0	98.0	Lowest	35.8-102.7
Dementia & Alzheimer's disease	42.8	55.6	2 <sup>nd</sup> lowest	20.9-81.1
Cancer of lungs & bronchus	31.7	50.3	2 <sup>nd</sup> lowest	20.4-50.3
Cerebrovascular diseases	23.1	36.6	Lowest	13.8-44.2
Chronic lower respiratory diseases	17.0	28.4		9.3-32.2
Cancer of colon, rectum, anus	15.7	23.4	2 <sup>nd</sup> lowest	12.4-24.4
Diabetes	12.0	20.7		9.1-16.8
Cancer of lymph, blood & related	13.3	20.0	2 <sup>nd</sup> lowest	8.7-27.1
Influenza & pneumonia	12.1	15.2		NA
Cancer of breast	11.9	14.3		NA
<b>Potential years of life lost (PYLL), 2012</b>				
<b>Total PYLL, 2012</b>	33,430	551,256		2,451-8,288
<b>% change in PYLL (2007-2012)</b>	-1.1%	-0.6%		NA
<b>PYLL rate per 100,000 population (age &lt; 75)</b>	3,013	4,405	Lowest	2,659.2-4,168.6
<b>% change in PYLL rate (2007-2012)</b>	-8.8%	-5.0%		NA
<b>Top 10 leading causes of PYLL, 2012 (rates per 100,000 population, age &lt; 75)<sup>4</sup></b>				
Ischaemic heart disease	265.7	406.8	Lowest	188.5-369.9
Cancer of lung & bronchus	207.9	322.6		159.5-279.4
Intentional self-harm	149.9	284.7	Lowest	70.4-288.5
Perinatal conditions	263.6	253.3		133.8-407.1
Transport accidents	108.3	171.8		62.8-262.8
Cancer of lymph, blood & related	85.0	149.1	Lowest	NA
Congenital malformations, deformations,	104.4	149.0	Lowest	63.7-148.6
Cancer of breast	145.7	147.0		118.6-313.9
Cancer of colon, rectum, anus	99.8	141.3		82.7-152.2
Cirrhosis & other liver diseases	87.7	133.5		NA

†Ranking in the province, compared to other LHINs.

<sup>3</sup> Mean rate from 2010-2012

<sup>4</sup> Mean rate from 2010-2012

## General Health, Risk Factors, and Prevention

### General Health

- In 2015-16, 61% of Mississauga Halton LHIN residents said they had very good or excellent health.
  - While self-perceived health by residents of the **Oakville** sub-region was one of the highest, self-perceived health by residents of **North West Mississauga** was one of the lowest in Ontario
- 73% of Mississauga Halton residents reported very good or excellent mental health. The proportion declined between 2005 and 2014, as it did in Ontario.
  - Compared to Ontario, self-perceived mental health is significantly more prevalent in **Oakville** sub-region.
- 23% of Mississauga Halton residents reported that most days were “quite a bit” or “extremely” stressful.

### Prevention

- 90% of Mississauga Halton residents reported having a regular medical doctor.
  - Compared to Ontario, the proportion of people with a regular medical doctor was **significantly higher** in the sub-regions of **Halton Hills** and **Milton**, with **Halton Hills** having the highest rate of attachment with a medical doctor in Ontario.
- 28% of residents of Mississauga Halton LHIN indicated that they received a flu shot in the year preceding the survey. This rate is **significantly lower** than the Ontario rate of 33%.

### Risk Factors

- 13% of Mississauga Halton residents reported daily or occasional smoking in 2015-16, which is the lowest among LHINs and **significantly lower** than the Ontario rate of 16.7%. Smoking rates have been declining over time.
- Also **significantly lower** than Ontario (18%), 15% of Mississauga Halton residents reported heavy drinking. Heavy drinking is defined as having consumed 5 or more drinks for males and 4 or more drinks for women on at least one occasion at least once a month during the past year.
- The majority-60%- of adult Mississauga Halton residents were either overweight or obese.
- The obesity rates in Mississauga Halton increased from 13% in 2005 to 18% in 2014.
- 46% of Mississauga Halton residents were physically inactive—now defined as less than 150 minutes of moderate to vigorous activity per week.
  - The rate of inactivity (2011-2014) in **East Mississauga** sub-region was **significantly higher** than Ontario.
- 74% of Mississauga Halton residents did not consume enough fruits and vegetables (i.e., had fewer than 5 servings of fruits or vegetables daily).

## General Health, Risk Factors, and Prevention; Mississauga Halton LHIN

	Mississauga Halton LHIN 2015-16	Ontario (2015-16)	Rank among LHINs <sup>†</sup> (2015-16)	Range across MH sub- regions (2011-14)*
<b>General Health</b>				
General health, % of the population age 12+ with...				
Very good or excellent self-perceived health	61%	61%		53-71%
Very good or excellent self-perceived mental health	73%	71%	3 <sup>rd</sup> highest	65-81%
Days that are 'quite a bit' or 'extremely' stressful (age 15+)	23%	22%		
<b>Prevention</b>				
Use of Health Services and Preventive Care, % of the population age 12+ who...				
Have a regular medical doctor	90%	90%		91-98%
Have consulted with family doctor/general practitioner (past yr)	75%	74%		
Received flu shot in the past year	28% <sup>-1</sup>	33%	2 <sup>nd</sup> lowest	
<b>Risk Factors</b>				
Risk factors, % of the population age 12+ who...				
Are daily or occasional smokers	13% <sup>-1</sup>	17%	<b>Lowest</b>	11-19% <sup>c</sup>
Are exposed to second-hand smoke in the home	5.2%	6.9%	2 <sup>nd</sup> lowest	
Are heavy drinkers	15% <sup>-1</sup>	18%	3 <sup>rd</sup> lowest	
Are overweight or obese (age 18+)	60%	61%	3 <sup>rd</sup> lowest	47-59%
Are overweight (age 18+)	38%	35%	2 <sup>nd</sup> highest	32-43%
Are obese (age 18+)	22% <sup>-1</sup>	26%	2 <sup>nd</sup> lowest	14-21% <sup>c</sup>
Are physically inactive	46%	42%	3 <sup>rd</sup> highest	33-54%
Consume < 5 servings of fruits/vegetables daily	74%	72%		50-66%

\*2011-2014 sub-region rates are not directly comparable with LHIN and Ontario rates from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

<sup>†</sup>Top or bottom 3 ranking in the province, compared to other LHINs. Interpret with caution, rank based on point estimate, which may or may not be significantly different from Ontario. See significance flags for each measure below.

<sup>1</sup> LHIN is **significantly higher** than Ontario

<sup>-1</sup> LHIN is **significantly lower** than Ontario

<sup>c</sup> Estimates with high sampling variability (CV between 16.6 -33.3) must be used with caution.

## Chronic Conditions

### Prevalence, mortality, hospital separations and hospital days of stay for selected chronic conditions

- 36.6% of Mississauga Halton residents (aged 12+) reported having a one or more chronic conditions while 12.3% having two or more chronic conditions.
- Additionally, the prevalence rate for residents with two or more chronic conditions was **significantly lower** than Ontario and was the 2<sup>nd</sup> lowest among the LHINs.
- Chronic conditions with the highest or lowest prevalence rates compared to other LHINs were as follows: Arthritis - 2<sup>nd</sup> lowest; Cancer - **Lowest**; Heart disease - **Lowest**; Suffer from effects of a stroke - 2<sup>nd</sup> lowest
- The mean health care cost per user for Mississauga Halton residents in 2015/16 was \$2,200 (\$2,750 for Ontario). Mississauga Halton LHIN was among the 3 LHINs with the lowest mean health care cost per user.
- 4.8% of the patients were complex (4+ conditions), 5.8% for Ontario. Mississauga Halton LHIN was among the 3 LHINs with the lowest proportion of complex patients.
- The mean healthcare cost of a complex patient was \$20,300 compared to \$22,050 for Ontario. Mississauga Halton LHIN was among the 3 LHINs with the lowest mean cost per complex patient.
- 3.7% of the patients were high cost user patients, 5.0% for Ontario. Mississauga Halton LHIN was among the 3 LHINs with the lowest proportion of high cost user patients.
- The mean healthcare cost per High Cost User was \$36,900 compared to \$37,700 for Ontario.
- The hospitalization rate (per 100,000 population) for cerebrovascular disease in Mississauga Halton LHIN was 117 compared to 133 for Ontario. Mississauga Halton LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for chronic obstructive pulmonary disease in Mississauga Halton LHIN was 103.6 compared to 171.8 for Ontario. Mississauga Halton LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for diabetes in Mississauga Halton LHIN was 79 compared to 100 for Ontario. Mississauga Halton LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for lower respiratory disease in Mississauga Halton LHIN was 140 compared to 209 for Ontario. Mississauga Halton LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for respiratory disease in Mississauga Halton LHIN was 492 compared to 600 for Ontario. Mississauga Halton LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for stroke in Mississauga Halton LHIN was 98 compared to 113 for Ontario. Mississauga Halton LHIN was among the 3 LHINs with the lowest rates.



### Chronic Conditions, Complex Patients

Condition	Mississauga Halton	Ontario	Comment
<b>Self-reported prevalence (2015-16), rate per 100, age 12+</b>			
Arthritis	16.6	20.6	2 <sup>nd</sup> lowest
Asthma	9.5	8.7	
Cancer	0.9 <sup>D</sup>	1.3	Lowest
Chronic Obstructive Pulmonary Disease (COPD) (age 35+)	3.6 <sup>C</sup>	4.0	
Diabetes	6.3	7.4	
High blood pressure	16.5	18.2	
Heart disease	2.5 <sup>C</sup>	4.6	Lowest
Suffer from effects of stroke	0.8 <sup>D</sup>	1.3	2 <sup>nd</sup> lowest
Have a chronic condition	36.6	39.6	
Have multiple chronic conditions <sup>1</sup>	12.3	16.2	2 <sup>nd</sup> lowest

C: 0.15<CV<=0.25 Marginal (Use with caution-high sampling variability)

D: 0.25<CV<=0.35 Marginal (Use with caution-high sampling variability)

1 - Of the selected conditions on this list

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>			
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	32.6	34.3	
Cardiovascular disease	830.7	916.9	
Cerebrovascular disease	117.1	133.2	
COPD	103.6	171.8	
Diabetes	78.8	100.2	
Hypertension	16.8	18.0	
Ischemic heart disease	290.5	314.8	
Lower respiratory disease	139.7	208.9	
Respiratory disease	491.7	599.7	
Stroke	97.6	112.5	
<b>complex Patients and High Cost Users, 2015/16</b>			
Mean health care cost per user \$	\$ 2,200	\$ 2,750	
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$ 20,300	\$ 22,050	
# of patients that are complex	50,160	680,115	
% of all patients (health care users) that are complex	4.8%	5.8%	
<b>High cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$ 36,900	\$ 37,700	
# of patients that are high cost users	38,910	581,670	
% of patients that are high cost users	3.7%	5.0%	

#### EAST MISSISSAUGA SUB-REGION (601)

- The prevalence rate (per 100) for the population with heart disease was 3.2 (Ontario - 5). *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The mean health care cost per user in East Mississauga sub-region was \$2,400 (Ontario - \$2,750).
- 5.7% of patients from East Mississauga sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in East Mississauga sub-region was \$20,000 (Ontario - \$22,050).
- 4.1% of patients from East Mississauga sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in East Mississauga sub-region was \$37,450 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	East Mississauga	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	13.8	17.3	63
Asthma	6.3	7.8	56
Diabetes	8.6	6.8	15
High blood pressure	21.3	18.1	23
Heart disease	3.2	5.0	65

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
AGE STANDARDIZED rate per 100,000			
Asthma	40.2	34.3	25
Cardiovascular disease	778.5	916.9	67
Cerebrovascular disease	126.8	133.2	55
COPD	105.0	171.8	65
Diabetes	88.0	100.2	54
Hypertension	18.8	18.0	29.5
Ischemic heart disease	233.6	314.8	67
Lower respiratory disease	149.2	208.9	64
Respiratory disease	500.7	599.7	66
Stroke	107.8	112.5	52

complex Patients and High Cost Users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,400	\$ 2,750	61.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$20,000	\$ 22,050	57
# of patients that are complex	14,330	680,115	
% of all patients (health care users) that are complex	5.7%	5.8%	48
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$37,450	\$ 37,700	29
# of patients that are high cost users	10,250	581,670	
% of patients that are high cost users	4.1%	5.0%	64

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## HALTON HILLS SUB-REGION (602)

- The prevalence rate (per 100) for the population with high blood pressure was 12.3 (Ontario - 18.1). **Halton Hills** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The age standardized rate (per 100,000) for hospitalization for asthma was 9.2 (Ontario - 34.3). **Halton Hills** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Halton Hills** sub-region was \$2,100 (Ontario - \$2,750). It was among the 8 sub-regions with the lowest mean cost per user.
- 4.1% of patients from **Halton Hills** sub-region were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the lowest percentage of complex patients.
- The mean health care cost per complex patient in **Halton Hills** sub-region was \$20,300 (Ontario - \$22,050).
- 3.9% of patients from **Halton Hills** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Halton Hills** sub-region was \$33,750 (Ontario - \$37,700). It was among the 8 sub-regions with the lowest mean cost per high cost user.

## Chronic Conditions, Complex Patients

Condition	Halton Hills	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	15.1	17.3	56
Asthma	12.0	7.8	3
Diabetes	F	6.8	
High blood pressure	12.3	18.1	73
Heart disease	3.2	5.0	64

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>		Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	9.2	34.3	76
Cardiovascular disease	995.4	916.9	37
Cerebrovascular disease	143.1	133.2	40
COPD	153.6	171.8	51
Diabetes	69.9	100.2	64
Hypertension	14.0	18.0	56
Ischemic heart disease	417.0	314.8	15
Lower respiratory disease	162.7	208.9	59
Respiratory disease	617.7	599.7	42
Stroke	107.9	112.5	51

<b>complex Patients and High Cost Users, 2015/16</b>		Ontario	Ranking*
Mean health care cost per user \$	\$2,100	\$ 2,750	68
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$20,300	\$ 22,050	55
# of patients that are complex	2,260	680,115	
% of all patients (health care users) that are complex	4.1%	5.8%	71
<b>High cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$33,750	\$ 37,700	73
# of patients that are high cost users	2,105	581,670	
% of patients that are high cost users	3.9%	5.0%	66

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## MILTON SUB-REGION (603)

- The prevalence rate (per 100) for the population with high blood pressure was 10.4 (Ontario - 18.1). **Milton** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 515.2 (Ontario - 314.8). **Milton** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **Milton** sub-region was \$1,750 (Ontario - \$2,750). It was among the 8 sub-regions with the lowest mean cost per user.
- 3.4% of patients from **Milton** sub-region were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the lowest percentage of complex patients.
- The mean health care cost per complex patient in **Milton** sub-region was \$19,100 (Ontario - \$22,050).
- 2.8% of patients from **Milton** sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the lowest percentage of high cost users.
- The mean health care cost per high cost user in **Milton** sub-region was \$33,400 (Ontario - \$37,700). It was among the 8 sub-regions with the lowest mean cost per high cost user.

## Chronic Conditions, Complex Patients

Condition	Milton	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	F	17.3	
Asthma	7.5	7.8	43
Diabetes	F	6.8	
High blood pressure	10.4	18.1	75
Heart disease	F	5.0	

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
AGE STANDARDIZED rate per 100,000			
Asthma	34.6	34.3	38
Cardiovascular disease	1,272.6	916.9	9
Cerebrovascular disease	153.0	133.2	27.5
COPD	271.1	171.8	15
Diabetes	117.1	100.2	30
Hypertension	17.5	18.0	38.5
Ischemic heart disease	515.2	314.8	7
Lower respiratory disease	307.2	208.9	17
Respiratory disease	790.3	599.7	16
Stroke	129.0	112.5	26

complex Patients and High Cost Users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$1,750	\$ 2,750	76
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$19,100	\$ 22,050	67.5
# of patients that are complex	3,275	680,115	
% of all patients (health care users) that are complex	3.4%	5.8%	76
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$33,400	\$ 37,700	74.5
# of patients that are high cost users	2,720	581,670	
% of patients that are high cost users	2.8%	5.0%	76

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## OAKVILLE SUB-REGION (604)

- The prevalence rate (per 100) for the population with asthma was 5.1 (Ontario - 7.8). **Oakville** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 109.7 (Ontario - 133.2). **Oakville** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 124.0 (Ontario - 208.9). **Oakville** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for stroke was 88.7 (Ontario - 112.5). **Oakville** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Oakville** sub-region was \$2,100 (Ontario - \$2,750). It was among the 8 sub-regions with the lowest mean cost per user.
- 4.7% of patients from **Oakville** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Oakville** sub-region was \$19,500 (Ontario - \$22,050).
- 3.7% of patients from **Oakville** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Oakville** sub-region was \$35,450 (Ontario - \$37,700).



### Chronic Conditions, Complex Patients

Condition	Oakville	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	15.8	17.3	53
Asthma	5.1	7.8	69
Diabetes	6.2	6.8	44
High blood pressure	15.0	18.1	63
Heart disease	4.5	5.0	50

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
AGE STANDARDIZED rate per 100,000			
Asthma	26.4	34.3	55
Cardiovascular disease	809.3	916.9	61
Cerebrovascular disease	109.7	133.2	72
COPD	94.5	171.8	68
Diabetes	67.9	100.2	66
Hypertension	16.5	18.0	43
Ischemic heart disease	289.5	314.8	56
Lower respiratory disease	124.0	208.9	69
Respiratory disease	457.7	599.7	68
Stroke	88.7	112.5	74

complex Patients and High Cost Users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,100	\$ 2,750	68
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$19,500	\$ 22,050	64.5
# of patients that are complex	8,130	680,115	
% of all patients (health care users) that are complex	4.7%	5.8%	63
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$35,450	\$ 37,700	53.5
# of patients that are high cost users	6,445	581,670	
% of patients that are high cost users	3.7%	5.0%	68

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## NORTH WEST MISSISSAUGA SUB-REGION (605)

- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 109.6 (Ontario - 133.2). North West Mississauga sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 85.4 (Ontario - 171.8). North West Mississauga sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for stroke was 92.8 (Ontario - 112.5). North West Mississauga sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in North West Mississauga sub-region was \$1,850 (Ontario - \$2,750). It was among the 8 sub-regions with the lowest mean cost per user.
- 3.7% of patients from North West Mississauga sub-region were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the lowest percentage of complex patients.
- The mean health care cost per complex patient in North West Mississauga sub-region was \$20,850 (Ontario - \$22,050).
- 2.9% of patients from North West Mississauga sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the lowest percentage of high cost users.
- The mean health care cost per high cost user in North West Mississauga sub-region was \$38,450 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	North West Mississauga	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	13.3	17.3	68
Asthma	6.7	7.8	53
Diabetes	9.4	6.8	8
High blood pressure	15.2	18.1	61
Heart disease	F	5.0	

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	41.3	23
Cardiovascular disease	921.4	48
Cerebrovascular disease	109.6	73
COPD	85.4	70
Diabetes	65.1	68
Hypertension	19.5	23
Ischemic heart disease	357.9	37
Lower respiratory disease	130.6	68
Respiratory disease	522.7	63
Stroke	92.8	70

complex Patients and High Cost Users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$1,850	75
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$20,850	51
# of patients that are complex	8,860	
% of all patients (health care users) that are complex	3.7%	75
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$38,450	24
# of patients that are high cost users	7,025	
% of patients that are high cost users	2.9%	75

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## SOUTH WEST MISSISSAUGA SUB-REGION (606)

- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 755.5 (Ontario - 916.9). [South West Mississauga](#) sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 110.4 (Ontario - 133.2). [South West Mississauga](#) sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 84.2 (Ontario - 171.8). [South West Mississauga](#) sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 113.8 (Ontario - 208.9). [South West Mississauga](#) sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 446.9 (Ontario - 599.7). [South West Mississauga](#) sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for stroke was 90.3 (Ontario - 112.5). [South West Mississauga](#) sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in [South West Mississauga](#) sub-region was \$2,400 (Ontario - \$2,750).
- 5.5% of patients from [South West Mississauga](#) sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in [South West Mississauga](#) sub-region was \$20,350 (Ontario - \$22,050).
- 4.2% of patients from [South West Mississauga](#) sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in [South West Mississauga](#) sub-region was \$36,700 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	South West Mississauga	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	19.4	17.3	35
Asthma	6.5	7.8	54
Diabetes	5.3	6.8	59
High blood pressure	19.0	18.1	41
Heart disease	3.9	5.0	61

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
AGE STANDARDIZED rate per 100,000			
Asthma	26.1	34.3	60
Cardiovascular disease	755.5	916.9	69
Cerebrovascular disease	110.4	133.2	70
COPD	84.2	171.8	71
Diabetes	83.0	100.2	56
Hypertension	18.8	18.0	29.5
Ischemic heart disease	255.2	314.8	62
Lower respiratory disease	113.8	208.9	71
Respiratory disease	446.9	599.7	70
Stroke	90.3	112.5	73

complex Patients and High Cost Users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,400	\$ 2,750	61.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$20,350	\$ 22,050	54
# of patients that are complex	6,725	680,115	
% of all patients (health care users) that are complex	5.5%	5.8%	52
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$36,700	\$ 37,700	35
# of patients that are high cost users	5,185	581,670	
% of patients that are high cost users	4.2%	5.0%	62

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

#### SOUTH ETOBICOKE SUB-REGION (607)

- The prevalence rate (per 100) for the population with arthritis (14+) was 8.2 (Ontario - 17.3). **South Etobicoke** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The mean health care cost per user in **South Etobicoke** sub-region was \$2,900 (Ontario - \$2,750).
- 6.5% of patients from **South Etobicoke** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **South Etobicoke** sub-region was \$21,650 (Ontario - \$22,050).
- 5.2% of patients from **South Etobicoke** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **South Etobicoke** sub-region was \$38,900 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	South Etobicoke	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	8.2	17.3	74
Asthma	11.7	7.8	6
Diabetes	F	6.8	
High blood pressure	15.1	18.1	62
Heart disease	6.0	5.0	24

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
AGE STANDARDIZED rate per 100,000			
Asthma	37.1	34.3	33
Cardiovascular disease	977.7	916.9	39
Cerebrovascular disease	148.3	133.2	35
COPD	127.7	171.8	58
Diabetes	113.9	100.2	35
Hypertension	16.1	18.0	45
Ischemic heart disease	282.1	314.8	57
Lower respiratory disease	170.3	208.9	57
Respiratory disease	545.9	599.7	59
Stroke	126.2	112.5	30

complex Patients and High Cost Users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,900	\$ 2,750	44
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$21,650	\$ 22,050	42.5
# of patients that are complex	6,575	680,115	
% of all patients (health care users) that are complex	6.5%	5.8%	24
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$38,900	\$ 37,700	22
# of patients that are high cost users	5,185	581,670	
% of patients that are high cost users	5.2%	5.0%	42

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## Human Resources

### Physicians

- In 2016, there were approximately 2,133 physicians in Mississauga Halton LHIN
  - This represents the equivalent of approximately 169 physicians for every 100,000 persons in Mississauga Halton LHIN.
  - The number of physicians in Mississauga Halton LHIN increased by close to 12% between 2013 and 2016 with similar growth occurring among both family medicine physicians and specialists.
- Between 2013 and 2016, there was an increase of approximately 120 family physicians in Mississauga Halton LHIN
  - The majority of the increase in Mississauga Halton LHIN occurred with 80 additional family physicians between 30-64 years of age.
- In 2016, approximately 14% of family physicians in Mississauga Halton LHIN were at or beyond the age of retirement (65 years of age or older).

### Nurses

- In 2016, there were 9,219 total nurses in Mississauga Halton LHIN.
- The total number of nurses increased by 11% between 2013 and 2016,
  - While there was a decrease in the number of Registered Nurses in Mississauga Halton LHIN between 2013 and 2016, there were substantial increases in the number of Nurse Practitioners (38% increase) and Registered Practical Nurses (37% increase) during the same time period.
- In 2016, there were approximately 730 nurses for every 100,000 residents of Mississauga Halton LHIN.

### Other Allied Health Professionals

- Between 2013 and 2016, the greatest growth in the number of allied health professionals in Mississauga Halton LHIN was among pharmacists (an increase of 330 or about 31%) and midwives (an increase of 11 or approximately 33%).
- There was also notable growth in the number of occupational therapists (50 additional or 18%), optometrists (29 additional or 17%), psychologists (32 additional or 14%) and audiologists (5 additional or 12%) in Mississauga Halton LHIN between 2013 and 2016.
- Opticians in Mississauga Halton LHIN experienced a 3% reduction in their raw numbers (9 fewer) and slightly higher reductions in their numbers per capita.



Mississauga Halton LHIN					
Physicians	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Total Family Medicine Physicians</b>					
Number of family medicine physicians	1,033	1,075	1,105	1,153	11.6%
Rate per 100,000 population	86.7	88.4	89.5	91.3	5.3%
<b>Total Specialists</b>					
Number of specialists	864	888	938	980	13.4%
Rate per 100,000 population	72.5	73.0	76.0	77.6	7.0%
<b>Total Physicians</b>					
Number of total physicians	1,897	1,963	2,043	2,133	12.4%
Rate per 100,000 population	159.3	161.5	165.5	168.9	6.0%

<b>Family Physicians, by age group - count</b>					
Age <30	17			27	58.8%
Age 30-64	889			969	9.0%
Age 65-74	108			132	22.2%
Age 75+	19			25	31.6%
Grand Total	1,033			1,153	11.6%
Age 65+	127			157	23.6%

<b>Family Physicians, by age group – percent</b>					
Age <30	1.6%			2.3%	42.3%
Age 30-64	86.1%			84.0%	-2.3%
Age 65-74	10.5%			11.4%	9.5%
Age 75+	1.8%			2.2%	17.9%
Age 65+	12.3%			13.6%	10.8%

Mississauga Halton LHIN					
Nurses	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Registered Nurses</b>					
Number of RNs	6,207	6,064	6,202	6,338	2.1%
Rate per 100,000 population	519.9	498.8	502.3	501.8	-3.5%
<b>Registered Practical Nurses</b>					
Number of RPN nurses	2,024	2,225	2,552	2,768	36.8%
Rate per 100,000 population	169.5	183.0	206.7	219.1	29.3%
<b>Nurse Practitioners</b>					
Number of NP nurses	82	97	99	113	37.8%
Rate per 100,000 population	6.9	8.0	8.0	8.9	30.2%
<b>Total Nurses</b>					
Total Nurse - Number of nurses	8,313	8,386	8,853	9,219	10.9%
Total Nurse - Rate per 100,000 population	696.3	689.8	716.9	729.9	4.8%

Mississauga Halton LHIN					
Other Regulated Health Professionals	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Audiologists</b>					
Audiologist - Number	43	48	41	48	11.6%
Audiologist - Rate per 100,000 population	3.6	3.9	3.3	3.8	5.5%
<b>Midwives</b>					
Midwife - Number	33	38	40	44	33.3%
Midwife - Rate per 100,000 population	2.8	3.1	3.2	3.5	26.0%
<b>Occupational Therapists</b>					
Occupational Therapist - Number	275	288	302	325	18.2%
Occupational Therapist - Rate per 100,000 population	23.0	23.7	24.5	25.7	11.7%
<b>Opticians</b>					
Optician - Number	267	262	267	258	-3.4%
Optician - Rate per 100,000 population	22.4	21.5	21.6	20.4	-8.7%
<b>Optometrists</b>					
Optometrist - Number	170	179	197	199	17.1%
Optometrist - Rate per 100,000 population	14.2	14.7	16.0	15.8	10.6%
<b>Pharmacists</b>					
Pharmacist - Number	1,059	1,182	1,278	1,389	31.2%
Pharmacist - Rate per 100,000 population	88.7	97.2	103.5	110.0	24.0%
<b>Psychologists</b>					
Psychologist - Number	227	232	245	259	14.1%
Psychologist - Rate per 100,000 population	19.0	19.1	19.8	20.5	7.8%
<b>Speech-Language Pathologists</b>					
Speech-Language Pathologist - Number	236	247	254	247	4.7%
Speech-Language Pathologist - Rate per 100,000 population	19.8	20.3	20.6	19.6	-1.1%

## Primary Care

### Primary Care Enrolment

- Almost 1 million (n=960,184) residents were enrolled with a PEM and 285,085 residents were affiliated with FFS physicians (i.e. not enrolled).
- The majority of LHIN residents were enrolled with a FHG, non-FHT (38%).
- There are 55 practices with 919 physicians in the LHIN, and the large majority of physicians are not associated with a FHT (n=760).

### Selected Measures from the Health Care Experience Survey

#### Self-reported access to, and satisfaction with, primary care

	Ontario (2017)	LHIN (2017)	Range Across MH sub-regions (2014-2017)
Percentage who are satisfied with health care in their community	87%	87%	84% to 91%
Percentage with primary care providers (attached patients)	94%	93%	93% to 98%
Percentage who saw their primary care provider within the same day/next day when sick	40%	43%	42% to 52%
Percentage who went to ED for something that could have been treated by primary care provider	42%	40%	20% to 37%
Percentage who found it difficult to access care after-hours without going to an emergency department	53%	46% <sup>L</sup>	35% to 53%
Percentage who went to walk-in clinic in past 12 months	30%	41% <sup>H</sup>	27% to 47%
Percentage who went to a walk in clinic for something that could have been treated by provider if they were available	92%	91%	89% to 96%

*H=significantly higher than the province*

*L=significantly lower than the province*

- Eighty-seven percent (87%) of Mississauga Halton residents were satisfied with health care in their community.
  - The **Oakville** sub-region (91%) reported a higher satisfaction proportion than the province.
- In 2017, 94.5% of Mississauga Halton adults (aged 16 years and older) had a primary care provider.
  - **Halton Hills** and **Milton** sub-regions reported **significantly higher** attachment rates than the province (98% and 97) respectively.
- In 2017, 43% of Mississauga Halton LHIN residents were able to see their primary care provider within the same day/next day when they were sick.
  - Rates ranged from 42% in **Milton** to 52% in **East Mississauga**, which was **significantly higher** than the Ontario proportion.
- Although generally increasing since 2013 (2.7% annual mean growth), 40% of Mississauga Halton LHIN went to the ED for something that could have been treated by their primary care provider.
  - **Halton Hills** and **Oakville** reported **significantly lower** proportions than the province (24% and 20%, respectively).
- 46% of LHIN residents found it difficult to access after-hours care without going to an ED, **significantly lower** than the provincial value (53%).

- Three sub-regions ([East Mississauga](#) at 39%, [Halton Hills](#) at 36%, and [Oakville](#) at 42%) reported **significantly lower** than provincial proportions.
- Alternately, Mississauga Halton reported one of the highest proportions of residents attending walk-in clinics in the past 12 months (41%), **significantly higher** than the provincial value (30%).
  - 5 of 6 sub-regions reported higher proportions than Ontario, with the exception of [Halton Hills](#) (27%).
  - Ninety-one percent (91%) felt that their walk-in visit could have been addressed by a primary care provider had one been available.

## Community Care

- Mississauga Halton LHIN ranks second lowest in CMH&A\_Community Visits-Face to Face Visits per 1,000 population with 96 (province is 232).
- Mississauga Halton LHIN ranks second lowest in CMH&A\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population with 13 (province is 55).
- Mississauga Halton LHIN ranks second lowest in CMH&A\_Community Group Participants Patient Attendances per 1,000 population with 32 (province is 65).
- Mississauga Halton LHIN ranks **lowest** in CMH&A\_Resident DaysResident Days per 1,000 population with 29 (province is 271).
- Mississauga Halton LHIN ranks second lowest in CSS\_Community Visits-Face to Face Visits per 1,000 population with 192 (province is 385).
- Mississauga Halton LHIN ranks second highest in CTC\_Community Group Participants Patient Attendances Visits per 1,000 population 0-18 with 159 (province is 54).

## Mental Health

### Wait Time for Community Services

- Assertive Community Treatment team and support within housing had the longest median wait times among the community mental health (MH) services in Mississauga Halton LHIN in 2017/18. With the exception of ACT team, support within housing and case management, Mississauga Halton LHN had shorter median wait times than the province for all community MH services in 2017/18.
- Among the substance abuse (SA) services provided in Mississauga Halton LHIN, residential treatment had the longest median wait times (90 days), 48 days longer than the province's median wait in 2017/18.
- For problem gambling, the median wait time for all services was shorter than the provincial median wait times.

### Mental Health and Substance Abuse Emergency Department Visits

- In 2016/17, there were 15,110 unscheduled ED visits for Mississauga Halton residents where the main problem was a MH/SA condition. There were 18,622 number of visits with a MH/SA condition in any of the diagnostic fields.
- Between 2013/14 and 2016/17, there was 22% growth in visits with a MH/SA main problem diagnosis (higher than the province's value of 20.9%) and 20.3% growth in visits with a MH/SA condition in any diagnostic field (lower than the province's value of 21.1%).
- The MH/SA ED visit rate per 1,000 population for Mississauga Halton LHIN residents was the second lowest rate in the province at 12.0. The main problem visit rate increased by 15.2% between 2013/14 and 2016/17.
  - By sub-region, **North West Mississauga** and **South West Mississauga** had the 3<sup>rd</sup> lowest and 8<sup>th</sup> lowest ED visit rate 8.7 and 11.6, respectively (per 1,000 population), where the main problem was a MH/SA condition.
  - Where a MH/SA condition was in any of the diagnostic fields, **North West Mississauga** and **South West Mississauga** had the 2<sup>nd</sup> and 8<sup>th</sup> lowest rates (11.0 and 14.5 per 1,000 population, respectively).
- Visits with n MH/SA main problem diagnosis accounted for 4.0% of all ED visits for Mississauga Halton LHIN residents.
- In 2016/17, there were 266 ED visits of Mississauga Halton residents for opioid overdose. Of those, 36.8% were accidental, the **lowest** proportion in the province.
- The crude rate of ED visits for opioid overdose in FY2016/17 for Mississauga Halton residents was 2.1, the third lowest rate in province. Between 2013/14 and 2016/17, there was a 63.3% growth in the visit rate for opioid overdose for all Mississauga Halton residents, higher than the province (48.4%).

Unscheduled emergency department utilization for mental health and substance abuse conditions,  
Mississauga Halton LHIN and Ontario residents, 2016/17

Measure	Mississauga Halton LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient<sup>†</sup></b>				
Main problem visits	15,110	268,514	22.2%	
% of total ED visits	4.0%	4.3%	-	
Any problem visits	18,622	338,260	20.3%	
% of total ED visits	4.9%	5.5%	-	
Main problem, visits per 1,000	12.0	19.2	15.2%	2 <sup>nd</sup> lowest
Any problem, visits per 1,000	14.7	17.1%	13.4%	Lowest
ED visits for opioid overdose	266	4,831	72.7%	
% of visits that were accidental	36.8%	50.1%	-	Lowest
Crude rate per 10,000 population	2.1	3.5	63.3%	3 <sup>rd</sup> lowest

<sup>†</sup>LHIN of patient results for Ontario exclude out-of-province residents

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

### Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility

- In 2016/17, there were 14,449 unscheduled ED visits in Mississauga Halton LHIN hospitals, where the main problem was a MH/SA condition. 1.7% of these visits were made by homeless individuals.
- There were 3,025 admissions and 3,170 active cases who received treatment in adult designated MH units in Mississauga Halton LHIN hospitals. There were 3,045 discharges from these units with the total days of discharge patients equal to 45,385 days. The mean length of stay in Mississauga Halton LHIN MH units was 14.9 days, the third lowest in the province. Residents from outside the LHIN accounted for 17.4% of the active cases treated in Mississauga Halton LHIN.
- Between 2013/14 and 2016/17, active cases, admissions and discharges increased in Mississauga Halton LHIN hospitals by 7.7%, 10.1% and 11.1%, respectively. The total days of discharged patients increased by 12.3%.
- Schizophrenia and psychotic disorders (32.1%) and bipolar and depressive disorders (30.7%) accounted for the largest proportions of active cases in Mississauga Halton LHIN hospitals in 2016/17. Compared with the provincial values, Mississauga Halton had larger proportions of active cases for schizophrenia and psychotic disorders, bipolar and depressive disorders, short stay and neurocognitive disorders.
- There were 3,577 active cases, 3,379 admissions and 3,395 discharges for Mississauga Halton LHIN residents from Ontario adult designated MH units. Mean length of stay for Mississauga Halton LHIN residents was the third lowest in the province. 26.8% of Mississauga Halton LHIN resident active cases received treatment in hospitals outside the LHIN. Compared with the provincial rates, Mississauga Halton LHIN residents had the **lowest** rates of active cases, admissions, and discharges per 100,000 population age 15+.
  - By sub-region, **North West Mississauga** had the 4<sup>th</sup> lowest crude rate of active cases (255.0), 3<sup>rd</sup> lowest crude rate of admissions (238.4) and 2<sup>nd</sup> lowest crude rate of discharges (238.4) per 100,000 population.
  - **Halton Hills** sub-region had the 7<sup>th</sup> lowest crude rate of active cases (303.3), 6<sup>th</sup> lowest crude rate of admissions (275.4) and 8<sup>th</sup> lowest crude rate of discharges (294.0) per 100,000 population among the 76 sub-regions.
- Active cases, admissions, discharges, total days and the associated rates increased for Mississauga Halton LHIN residents between 2013/14 and 2016/17.

Adult designated mental health unit utilization, Mississauga Halton LHIN hospitals and residents, 2016/17

Measure	Mississauga Halton LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient</b>				
Active cases	3,577	64,523	8.9%	
Admissions	3,379	60,197	9.9%	
Discharges	3,395	60,607	11.5%	
Total Days	64,661	1,504,690	14.8%	
Mean Length of Stay	19.0	24.8	-	3 <sup>rd</sup> lowest
% Outflow Active Cases	26.8%	-	-	3 <sup>rd</sup> highest
Active Cases per 100,000 (age 15+)	341.9	548.5	2.1%	Lowest
Admission per 100,000 (age 15+)	323.0	511.7	3.0%	Lowest
Discharges per 100,000 (age 15+)	324.5	515.2	4.5%	Lowest
<b>SCIPP Categories - % of total active cases</b>				
Short Stay	27.5%	27.4%	-	
Schizophrenia and other psychotic disorders	30.1%	27.0%	-	
Neurocognitive disorders	3.4%	3.1%	-	
Bipolar and depressive disorders	30.8%	29.6%	-	
Personality disorders	1.4%	3.0%	-	
Feeding and eating disorders	0.2%	0.4%	-	
Substance Use disorders	3.9%	5.5%	-	
Other disorders	2.7%	4.0%	-	
<b>LHIN of hospital</b>				
Active cases	3,170	64,738	7.7%	
Admissions	3,025	60,383	10.1%	
Discharges	3,045	60,795	11.1%	
Total Days (discharged patients only)	45,385	1,512,754	12.3%	
Mean Length of Stay	14.9	24.9	-	3 <sup>rd</sup> lowest
% Inflow Active Cases	17.4%	-	-	

‡Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.



## Surgery & Diagnostic Imaging

### Day Surgery and Cardiac Catheterization Utilization

#### Day Surgery and Cardiac Catheterization Visits

- In 2016/17, there were 86,896 day surgery and ambulatory cardiac catheterization visits to Mississauga Halton LHIN hospitals. Residents from outside the LHIN accounted for 24.5% of the visits.
- Between 2013/14 and 2016/17, there was an increase of 6.6% in Mississauga Halton LHIN hospital's day surgery and cardiac catheterization visits.
- There were 90,229 day surgery and ambulatory cardiac catheterization visits for Mississauga Halton LHIN residents. There was a 5.4% increase in visits but the rate of visits was stable.
- In 2016/17, 27.3% of these visits occurred in hospitals outside the LHIN.
- The following sub-regions had among the eight highest outflow rates to other LHINs for all Ontario sub-regions:
  - **South Etobicoke** sub-region had the **highest** outflow rate when compared to the other sub-regions.
- Mississauga Halton LHIN residents had 71.4 day surgery and cardiac catheterization visits per 1,000 population. This rate was lower than the provincial rate of 93.9.
- The following sub-regions had among the eight lowest rates of visits per 1,000 population within all sub-regions:
  - **North West Mississauga** had the **lowest** rate of visits per 1,000 population.
  - **East Mississauga** had the 3<sup>rd</sup> lowest rate of visits per 1,000 population.
  - **South West Mississauga** had the 8<sup>th</sup> lowest rate of visits per 1,000 population.

#### Day surgery and ambulatory cardiac catheterization visits, Mississauga Halton LHIN and Ontario, 2016/17

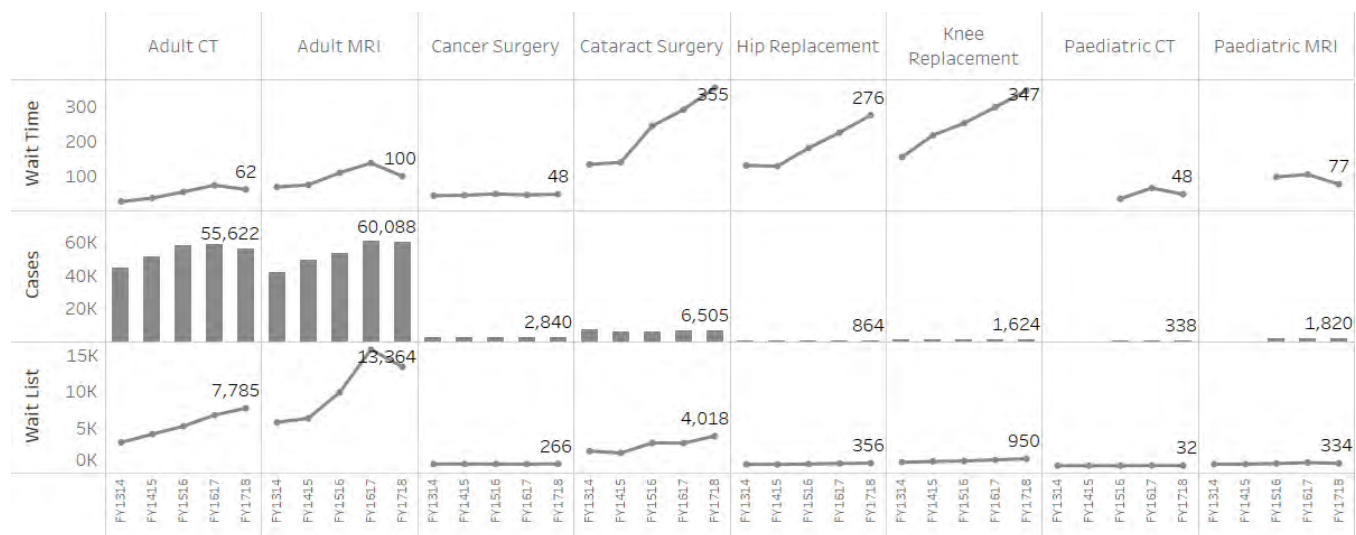
Measure	LHIN	Comments	Ontario†	LHIN % change 2013-14 - 2016/17	Range within LHINs	Range within MH sub-regions
<b>LHIN of hospital</b>						
Visits	86,896		1,322,943	6.6%	27,727 - 158,077	
% Inflow visits	24.5%				0.7% - 58.4%	
<b>LHIN of patient</b>						
Total population	1,263,117		13,982,984	5.8%	235,148 - 1,893,948	
Visits	90,229		1,313,103	5.4%	28,401 - 157,644	6,274 - 19,528
% Outflow visits	27.3%				3.0% - 39.0%	17.3% - 64.3%
Visits per 1,000 population	71.4		93.9	-0.6%	66.8 - 151.0	56.8 - 94.0
- age 0-17 years	14.7		22.2		13.9 - 38.4	
- age 18-44 years	34.8	Lowest	46.5		34.8 - 85.5	
- age 45-64 years	100.3	2 <sup>nd</sup> lowest	125.3		93.9 - 183.0	
- age 65-79 years	202.2	2 <sup>nd</sup> lowest	239.9		176.5 - 318.4	
- age 80+ years	202.5		202.7		138.5 - 260.4	

†LHIN of patient results for Ontario exclude out-of-province residents

## Surgical & Diagnostic Imaging Wait Times

### Mississauga Halton LHIN Priority Procedures: Wait 2 90th Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

#### LHIN of Treatment

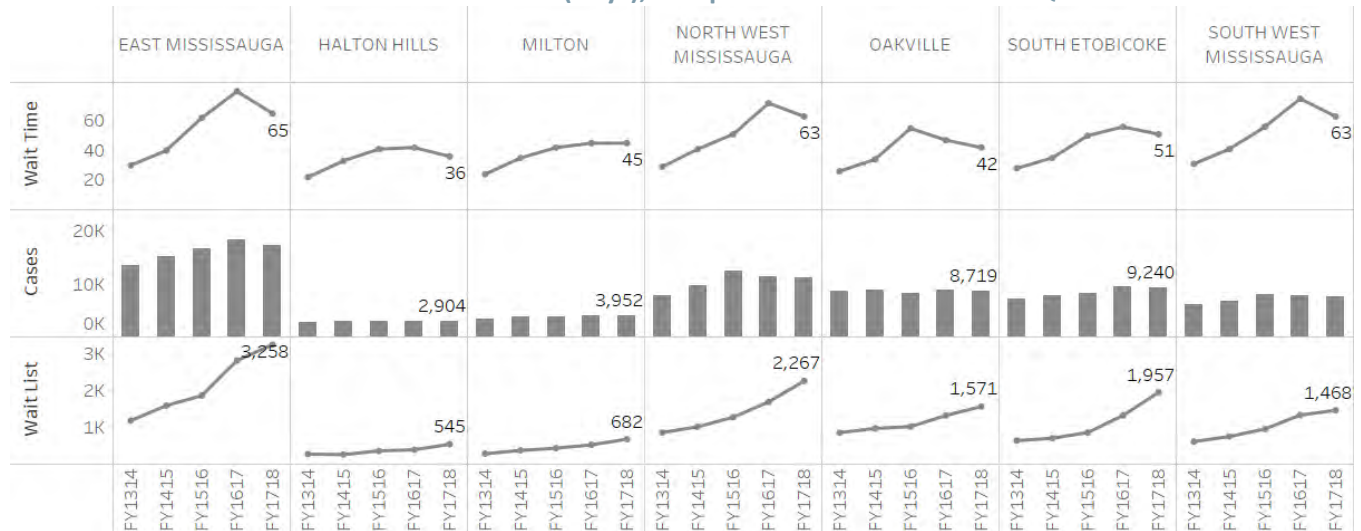


## Adult CT

- There were 55,622 adult CT scans completed in FY 2017-18; 3,165 fewer scans completed compared to the previous fiscal year
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 62 days and the **longest** of all reporting LHINs, 12 days shorter than the previous fiscal
- In 2017/18, hospitals in the Mississauga Halton LHIN had the 2<sup>nd</sup> longest wait time for adult CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 7,785 patients; 933 more queued compared to the previous fiscal

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Adult CT (Days), Completed Cases and Wait List Queue Trends



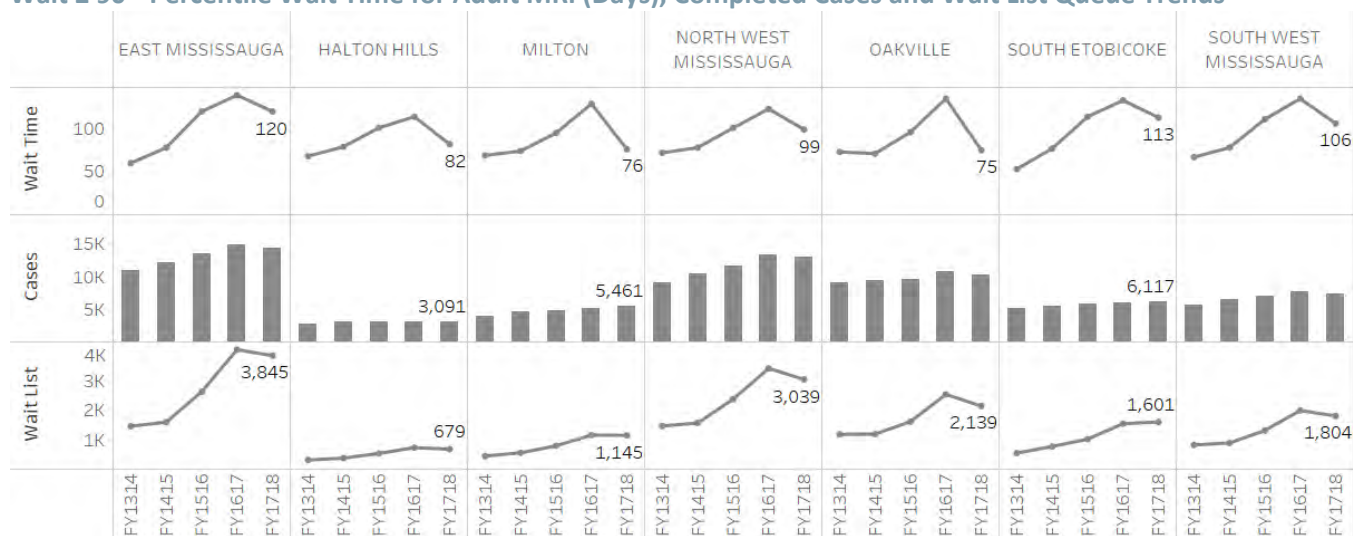
- Mississauga Halton LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 36 days to 65 days

## Adult MRI

- There were 60,088 adult MRI scans completed in FY 2017-18; 194 fewer scans completed compared to the previous fiscal year
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 100 days, 38 days shorter than the previous fiscal
- In 2017/18, hospitals in the Mississauga Halton LHIN had the 5<sup>th</sup> longest wait time for adult MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 13,364 patients; 2,342 fewer queued compared to the previous fiscal

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Adult MRI (Days), Completed Cases and Wait List Queue Trends



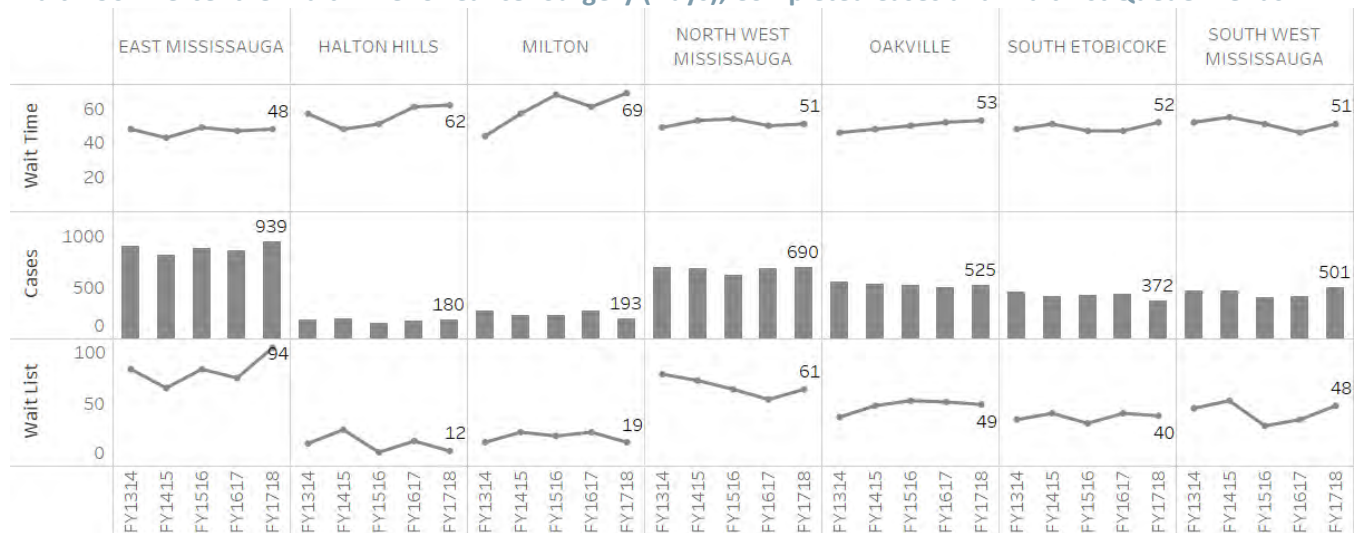
- Mississauga Halton LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 75 days to 120 days

## Cancer Surgery

- There were 2,840 cancer surgeries completed in FY 2017-18; 46 more surgeries completed compared to the previous fiscal year
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 48 days, 2 days longer than the previous fiscal
- In 2017/18, hospitals in the Mississauga Halton LHIN had the 7<sup>th</sup> shortest wait time for cancer surgery.
- The wait list queue at the start of FY 2017-18 was 266 patients; 41 more queued compared to the previous fiscal

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Cancer Surgery (Days), Completed Cases and Wait List Queue Trends



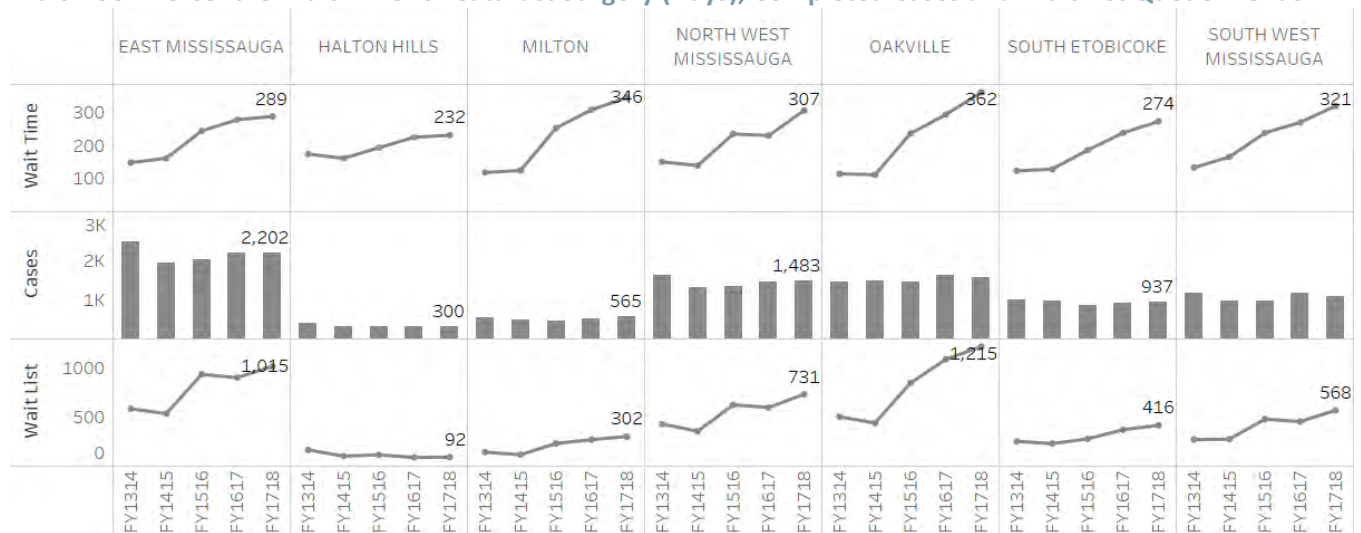
- Mississauga Halton LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 48 days to 69 days

### Cataract Surgery

- There were 6,505 cataract surgeries completed in FY 2017-18; 131 fewer surgeries completed compared to the previous fiscal year
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 355 days, 63 days longer than the previous fiscal
- In 2017/18, hospitals in the Mississauga Halton LHIN had the 2<sup>nd</sup> longest wait time for cataract surgery.
- The wait list queue at the start of FY 2017-18 was 4,018 patients; 950 more queued compared to the previous fiscal

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90<sup>th</sup> Percentile Wait Time for Cataract Surgery (Days), Completed Cases and Wait List Queue Trends



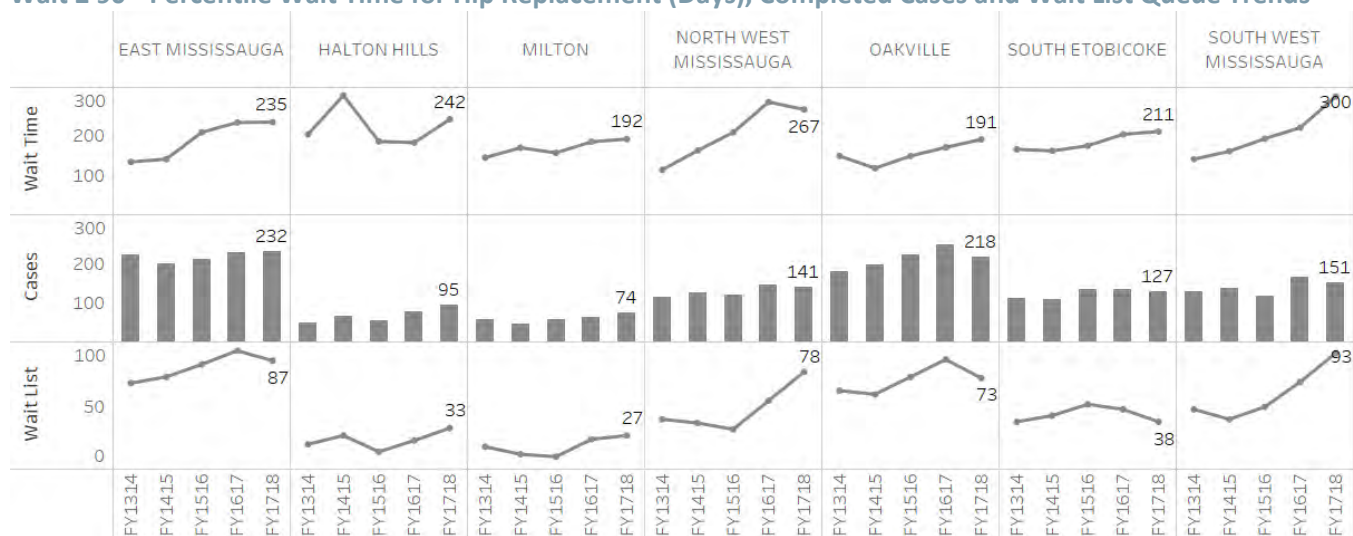
- Mississauga Halton LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 232 days to 362 days

## Hip Replacement

- There were 864 hip replacement surgeries completed in FY 2017-18; 43 fewer surgeries completed compared to the previous fiscal year
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 276 days, 50 days longer than the previous fiscal
- In 2017/18, hospitals in the Mississauga Halton LHIN had the 4<sup>th</sup> longest wait time for hip replacement surgery.
- The wait list queue at the start of FY 2017-18 was 356 patients; 38 more queued compared to the previous fiscal

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Hip Replacement (Days), Completed Cases and Wait List Queue Trends



- Mississauga Halton LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 191 days to 300 days

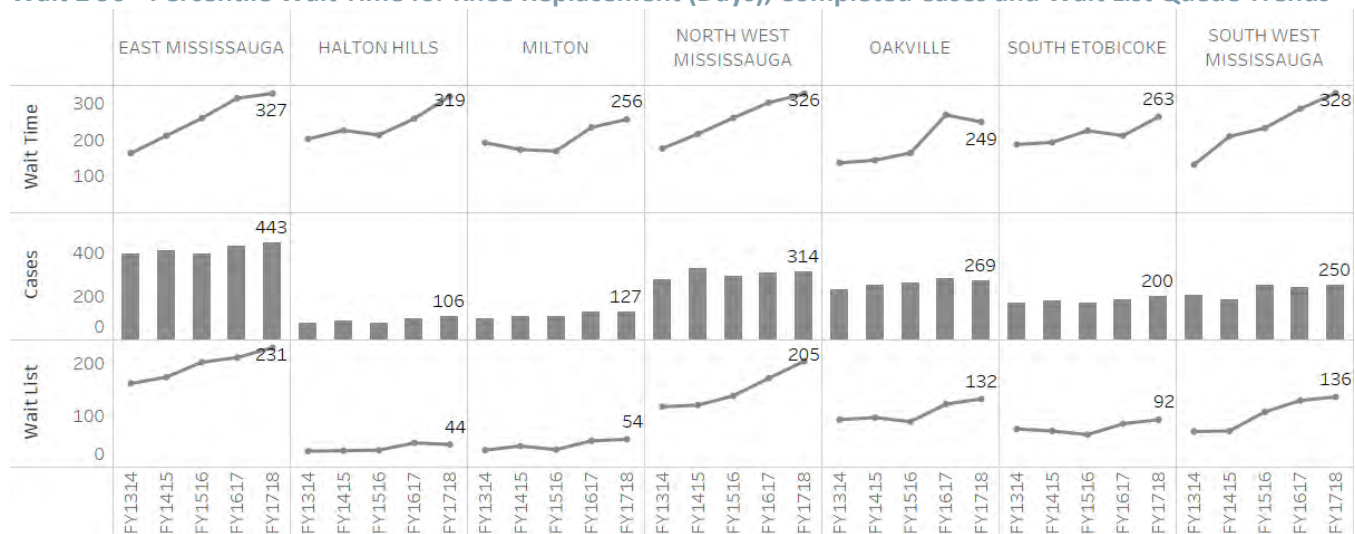


## Knee Replacement

- There were 1,624 knee replacement surgeries completed in FY 2017-18; 45 fewer surgeries completed compared to the previous fiscal year
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 347 days, 48 days longer than the previous fiscal
- In 2017/18, hospitals in the Mississauga Halton LHIN had the 5<sup>th</sup> longest wait time for knee replacement surgery.
- The wait list queue at the start of FY 2017-18 was 950 patients; 140 more queued compared to the previous fiscal

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Knee Replacement (Days), Completed Cases and Wait List Queue Trends



- Mississauga Halton LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 249 days to 328 days

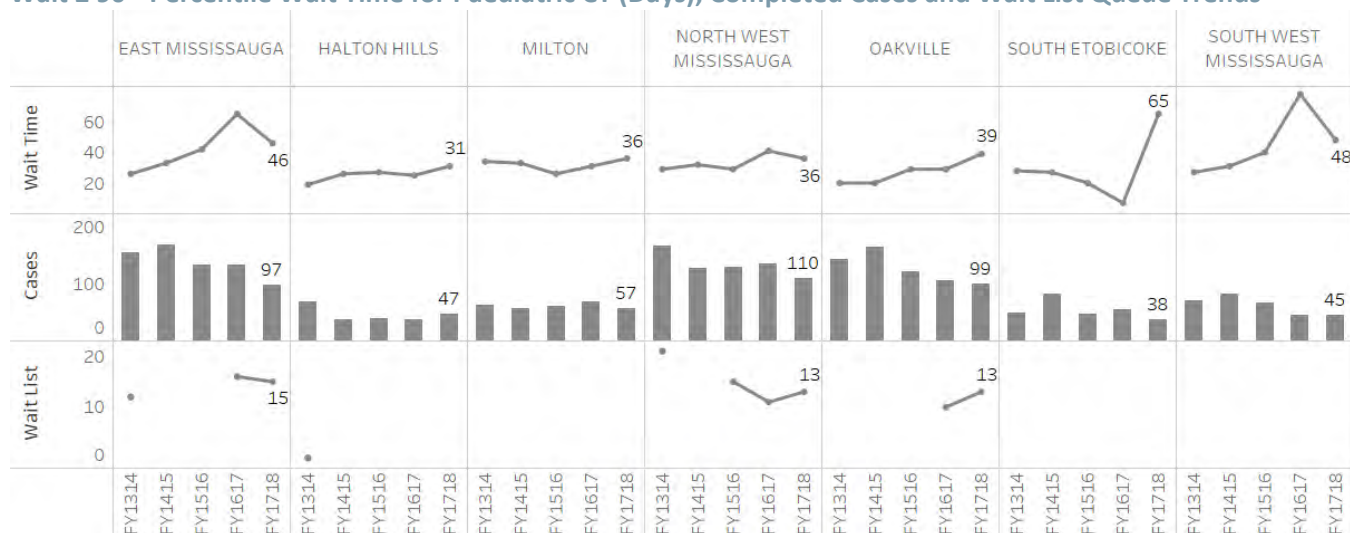


## Paediatric CT

- There were 338 paediatric CT scans completed in FY 2017-18; 35 fewer scans completed compared to the previous fiscal year
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 48 days and the **longest** of all reporting LHINs, 18 days shorter than the previous fiscal
- In 2017/18, hospitals in the Mississauga Halton LHIN had the 2<sup>nd</sup> longest wait time for paediatric CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 32 patients; similar to the previous fiscal

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Paediatric CT (Days), Completed Cases and Wait List Queue Trends



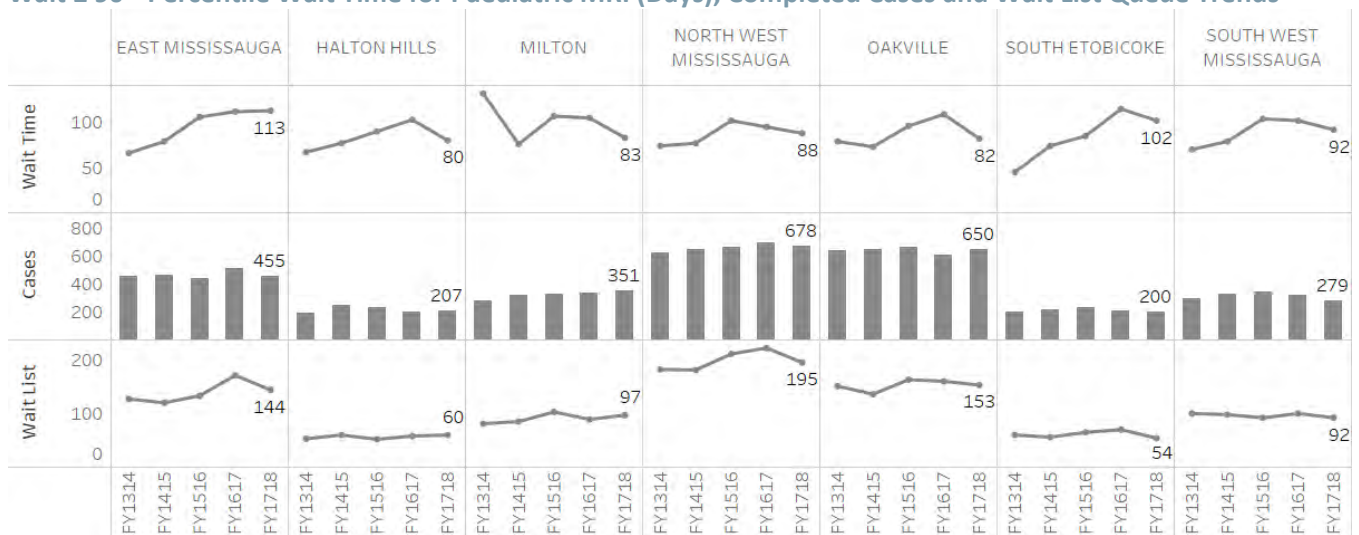
- Mississauga Halton LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 31 days to 65 days
- **South Etobicoke** sub-region wait time of 65 days was the **longest** across the province for this period

### Paediatric MRI

- There were 1,820 paediatric MRI scans completed in FY 2017-18; 125 fewer scans completed compared to the previous fiscal year
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 77 days, 28 days shorter than the previous fiscal
- In 2017/18, hospitals in the Mississauga Halton LHIN had the 6<sup>th</sup> shortest wait time for paediatric MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 334 patients; 98 fewer queued compared to the previous fiscal

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90<sup>th</sup> Percentile Wait Time for Paediatric MRI (Days), Completed Cases and Wait List Queue Trends



- Mississauga Halton LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 80 days to 113 days

## Oncology and Dialysis

### Ambulatory Oncology Utilization

- In 2016/17, there were 83,818 ambulatory oncology visits to hospital(s) in Mississauga Halton LHIN.
- Since 2014/15, visits in Ontario have increased by 9%. The number of visits to Mississauga Halton LHIN hospitals increased by 12% and visits for LHIN residents increased by 7%.
- Ambulatory oncology visits per 1,000 population for residents of Mississauga Halton LHIN is 64.3 (Ontario - 75.7). The rate is among the 4 lowest visit rates in the province.
- Oncology visits per 1,000 population for age group 45-64 years is 94.9 (Ontario - 106.7), which is among the 4 lowest visit rates in the province for this age group. The rate for age group 80+ years is 204.2 (Ontario - 191.6), which is among the 4 highest visit rates.
- At sub-region level, the highest/lowest (top 8/bottom 8) visit rates are for
  - Age group 18-44 years, **Halton Hills** (20.3) and **Milton** (25.0) have among the highest visit rates in Ontario (Ontario - 15.9). **South West Mississauga** (8.4) has one of the lowest visit rates.
  - Age group 45 – 64 years, **South West Mississauga** (83.5) has one of the lowest visit rates in Ontario. (Ontario - 106.7)
  - Age group 65-79 years, **Milton** (380.7) has one of the highest visit rates (Ontario - 255.4)
  - Age group 80+ years, **Milton** (267.7) and **South Etobicoke** (244.4) have among the highest visit rates in Ontario (Ontario - 191.6).
- 32% of ambulatory oncology visits by Mississauga Halton LHIN residents were to hospitals outside of Mississauga Halton LHIN. At the sub-region level, the highest outflow was seen in South Etobicoke (60.4%).
- 34% of ambulatory oncology visits to Mississauga Halton LHIN hospitals were by non-Mississauga Halton LHIN residents.

Ambulatory Oncology	Mississauga Halton	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory oncology visits	83,818	1,059,358		Increase	
% Inflow oncology visits	34.0%				
<b>LHIN of patient</b>					
Ambulatory oncology visits	81,210	1,057,888		Increase	4,612 -20,409
% Outflow oncology visits	31.9%				
Visits per 1,000 population	64.3	75.7	3rd lowest	Increase	56.2 -71.7
Visit rate/1,000 population age 0-17 years	4.9	5.0			3.2 -6.0
Visit rate/1,000 population age 18-44 years	15.6	15.9			8.4 -25.0
Visit rate/1,000 population age 45-64 years	94.9	106.7	3rd lowest		83.5 -122.1
Visit rate/1,000 population age 65-79 years	237.2	255.4			202.1 -380.7
Visit rate/1,000 population age 80+ years	204.2	191.6	4th highest		162.0 -267.7

Ambulatory Oncology - Sub-Region	Mississauga Halton	East Mississauga	Halton Hills	Milton	Oakville	North West Mississauga	South West Mississauga	South Etobicoke
<b>LHIN of hospital</b>								
Ambulatory oncology visits	83,818							
% Inflow oncology visits	34.0%							
<b>LHIN of patient</b>								
Ambulatory oncology visits~	81,210	20,409	4,612	6,588	13,592	16,311	10,831	8,867
% Outflow oncology visits	31.9%	26.0%	37.9%	33.7%	37.5%	21.9%	24.1%	60.4%
Visits per 1,000 population	64.3	63.3	69.1	69.8	65.6	56.2	68.5	71.7
Visit rate/1,000 population age 0-17 years	4.9	5.9	4.2	6.0	3.2	4.7	5.4	5.6
Visit rate/1,000 population age 18-44 years	15.6	12.8	20.3	25.0	19.1	17.6	8.4	11.6
Visit rate/1,000 population age 45-64 years	94.9	96.1	95.1	122.1	88.6	89.7	83.5	115.9
Visit rate/1,000 population age 65-79 years	237.2	202.1	267.8	380.7	245.5	242.4	238.8	230.0
Visit rate/1,000 population age 80+ years	204.2	162.0	202.0	267.7	184.5	241.1	223.2	244.4

### Ambulatory Dialysis Utilization

- In 2016/17, there were 111,166 ambulatory dialysis visits to hospital(s) in Mississauga Halton LHIN.
- Since 2014/15, visits in Ontario have increased by 3%. The number of visits to Mississauga Halton LHIN hospitals increased by 8% and visits for Mississauga Halton LHIN residents increased by 9%.
- The rate of ambulatory dialysis visits per 1,000 population for residents of Mississauga Halton LHIN is 83.3 (Ontario - 90.4).
- Dialysis visits per 1,000 population for age group 18-44 years ) (Ontario - 21.8) and for age group 45-64 years (85.2) (Ontario - 105.3) are among the 4 lowest visit rates in the province for their respective age groups.
- Conversely, visit rates for age group 65-79 years (330.7) (Ontario - 285.3) and age group 80+ years (565.5) (Ontario - 426.7) are among the 4 highest visit rates for their respective age groups.
- Notable (top 8/bottom 8) dialysis visit rates by age group when compared to all sub-regions were:
  - Age group 18 – 44 years, [Halton Hills](#) (0.7) has one of the lowest visit rates (Ontario - 21.8)
  - Age group 45 - 64 years, [Halton Hills](#) (26.3) has one of the lowest visit rates (Ontario - 105.3).
  - Age group 65-79 years, [Milton](#) (576.9) has one of the highest visit rate (Ontario - 285.3).
  - Age group 80+ years, [North West Mississauga](#) (1140.1) has among the 8 highest visit rates in Ontario (426.7).
- 18% of ambulatory dialysis visits by Mississauga Halton LHIN residents were to hospitals outside of Mississauga Halton LHIN.
- 22% of ambulatory dialysis visits to Mississauga Halton LHIN hospitals were by non-Mississauga Halton LHIN residents.

*Note: Ambulatory dialysis visit volumes for residents in age group 0-17 are low to none across all sub-regions. Caution should be used when interpreting visit rates in this age group.*

Ambulatory Dialysis	Mississauga Halton	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory dialysis visits	111,166	1,269,794		Increase	
% Inflow dialysis visits	22.4%				
<b>LHIN of patient</b>					
Ambulatory dialysis visits	105,232	1,264,676		Increase	2,313 -33,816
% Outflow dialysis visits	18.0%				
Visits per 1,000 population	83.3	90.4		Increase	34.6 -104.9
Visit rate/1,000 population age 0-17 years	1.8	1.2			0.0 -5.2
Visit rate/1,000 population age 18-44 years	17.8	21.8	3rd lowest		0.7 -28.5
Visit rate/1,000 population age 45-64 years	85.2	105.3	4th lowest		26.3 -135.7
Visit rate/1,000 population age 65-79 years	330.7	285.3	3rd highest		159.3 -576.9
Visit rate/1,000 population age 80+ years	565.5	426.7	2nd highest		343.2 -1140.1

Ambulatory Dialysis - Sub-Region	Mississauga Halton	East Mississauga	Halton Hills	Milton	Oakville	North West Mississauga	South West Mississauga	South Etobicoke
<b>LHIN of hospital</b>								
Ambulatory dialysis visits	111,166							
% Inflow dialysis visits	22.4%							
<b>LHIN of patient</b>								
Ambulatory dialysis visits~	105,232	33,816	2,313	6,274	13,779	24,423	13,616	11,011
% Outflow dialysis visits	18.0%	18.1%	36.3%	5.9%	2.9%	7.0%	5.2%	79.8%
Visits per 1,000 population	83.3	104.9	34.6	66.5	66.5	84.1	86.1	89.0
Visit rate/1,000 population age 0-17 years	1.8	5.2	0.0	0.0	3.7	0.0	0.0	0.5
Visit rate/1,000 population age 18-44 years	17.8	28.5	0.7	15.0	13.1	17.2	18.8	8.7
Visit rate/1,000 population age 45-64 years	85.2	108.8	26.3	47.8	51.6	92.7	76.2	135.7
Visit rate/1,000 population age 65-79 years	330.7	344.5	159.3	576.9	262.8	378.6	319.2	308.7
Visit rate/1,000 population age 80+ years	565.5	549.1	343.2	550.6	499.8	1140.1	403.2	371.3

\*Ranking: Highest or lowest 4 ranking in the province, compared to other LHINs.

^ Trend: "Increase/decrease" when there is a change more than 1%, otherwise, "stable"

~ There are some records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables with the LHIN name but as SR unassigned.

## Home Care

### Home Care Patient Referrals

- In 2017/18, there were 47,655 active home care patient referrals in the Mississauga Halton LHIN.
  - The [East Mississauga](#) sub-region had the largest proportion of Mississauga Halton LHIN patient referrals in 2017/18 at 12,293.
  - Across Ontario's sub-regions, [Halton Hills](#) had the eighth lowest number of active patient referrals with 2,677.

### Active Patient Referrals 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
East Mississauga	11,018	11,257	12,293	
Halton Hills	2,389	2,393	2,677	8 <sup>th</sup> lowest
Milton	2,938	3,295	3,699	
North West Mississauga	7,366	7,595	8,409	
Oakville	6,788	7,045	7,795	
South Etobicoke	4,537	4,661	5,152	
South West Mississauga	5,358	5,402	5,710	
Out of LHIN Region	781	846	1,023	
Unknown Region	2,373	1,823	907	
MH Total	43,548	44,317	47,665	

### Home Care Referral Rate

- In 2017/18, Mississauga Halton LHIN's utilization rate was the second lowest in the province at 36.9 referrals per 1,000 (compared to 48.2 for Ontario).
  - Within the LHIN, the utilization rate ranged from 29.0 referrals per 1,000 in [North West Mississauga](#) to 41.6 in [South Etobicoke](#).
  - Across Ontario's sub-regions, the utilization rate for [North West Mississauga](#) (29.0) was the second lowest rate in the province.

### Referrals (per 1,000 population) 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
East Mississauga	35.1	34.9	38.1	
Halton Hills	36.4	35.8	40.1	
Milton	31.6	34.9	39.2	
North West Mississauga	25.9	26.2	29.0	2 <sup>nd</sup> lowest
Oakville	33.4	34.0	37.6	
South Etobicoke	37.6	37.7	41.6	
South West Mississauga	34.7	34.2	36.1	
MH Total	35.3	35.1	36.9	

\*Rank based on 2017/18 utilization rates

### Home Care Services

- In Mississauga Halton LHIN, there were 759,738 home care visits and 2,422,842 service hours in 2017/18.
- The rate of home care visits was 587.7 per 1,000 population and the rate of service hours was 1,874.1 per 1,000 population.
- Mississauga Halton had the lowest nursing visits per 1,000 population, 2<sup>nd</sup> lowest occupational therapy visits per 1,000 population, and 2<sup>nd</sup> lowest personal support hours per 1,000 population.
- The following sub-regions had among the eight lowest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - **Halton Hills** had the 3<sup>rd</sup> lowest rate of personal support hours.
  - **Halton Hills** had the 3<sup>rd</sup> lowest rate of total hours.
  - **Halton Hills** had the 8<sup>th</sup> lowest rate of nursing visits.
  - **Halton Hills** had the 8<sup>th</sup> lowest rate of total visits rate.
  - **Milton** had the 8<sup>th</sup> lowest rate of personal support hours.
  - **Milton** had the 8<sup>th</sup> lowest rate of occupational therapy visits.
  - **North West Mississauga** had the 3<sup>rd</sup> lowest rate of nursing visits.
  - **North West Mississauga** had the 7<sup>th</sup> lowest rate of occupational therapy visits.
  - **North West Mississauga** had the 5<sup>th</sup> lowest rate of total visits rate.
- Between 2014/15 and 2017/18 there was an increase in total visits of 13.3% and an increase in total hours of 27.3% in Mississauga Halton LHIN. During this period speech language pathology visits increased by 31.6%, case management visits increased by 56.1%, nursing shift hours increased by 31.7% and personal support hours increased by 23.2%.
- Between 2014/15 and 2017/18 speech language pathology visit rate increased by 23.8%, case management visit rate increased by 46.8%, nursing shift hours rate increased by 23.9% and personal support hours rate increased by 15.9%.

## Summary of Home Care Service by Type, Mississauga Halton LHIN, 2017/18

	Mississauga Halton LHIN Residents	Ontario Residents*	Comments	LHIN % Change 2014/15 to 2017/18	Range across MH sub-regions**
<b>Service Visits</b>					
<b>All Visits†</b>	759,738	11,528,751		13.3%	33,743-209,444
Nursing Visit	450,821	7,539,458		2.9%	21,104-123,943
Physiotherapy	69,821	738,685		8.5%	2,255-23,223
Occupational Therapy	33,621	615,215		1.4%	1,795-9,485
Social Work	2,346	56,973		21.5%	99-788
Nutrition and Dietetic	2,613	47,949		32.7%	205-609
Speech Language Pathology	20,900	273,735		31.6%	1,115-5,393
Case Management	179,429	2,211,107		56.1%	7,165-47,327
<b>Service Hours</b>					
<b>All Hours</b>	2,422,842	34,396,919		27.3%	77,216-679,076
Nursing Shift	171,708	2,366,020		31.7%	13,407-40,016
Personal Support Work and Homemaking	2,173,953	31,319,568		23.2%	60,534-621,734
Respite	77,180	711,331		n/a	1,700-23,924
<b>Service Visits per 1,000 population</b>					
<b>All Visits per 1,000 population †</b>	587.7	810.2	2 <sup>nd</sup> lowest	6.6%	458.7-713.1
Nursing Visit	348.7	529.8	Lowest	-3.2%	258.1-466.1
Physiotherapy	54.0	51.9		2.0%	33.8-72.0
Occupational Therapy	26.0	43.2	2 <sup>nd</sup> lowest	-4.6%	22.7-29.4
Social Work	1.8	4.0		14.3%	1.2-2.8
Nutrition and Dietetic	2.0	3.4	2 <sup>nd</sup> lowest	24.8%	1.7-3.1
Speech Language Pathology	16.2	19.2		23.8%	12.5-22.5
Case Management	138.8	155.4		46.8%	107.3-170.3
<b>Service Hours per 1,000 population</b>					
<b>All Hours</b>	1,874.1	2,417.3	2 <sup>nd</sup> lowest	19.7%	1,156.6-2,381.9
Nursing Shift	132.8	166.3		23.9%	84.8-225.5
Personal Support Work and Homemaking	1,681.6	2,201.0	2 <sup>nd</sup> lowest	15.9%	906.8-2,162.3
Respite	59.7	50.0		n/a	25.5-101.2

\*Not all LHINs offer the same services or report case management services in the same manner.

\*\*Service rates per 1,000 population are calculated using 2017/18 service levels divided by 2016 population estimates from the Ministry of Finance. Typically 2017 population estimates would be used but they were not available at the sub-region level at time of calculation.

†Includes visits for respiratory, psychology, and 'other' service types (not shown), which are not consistently reported/available in all LHINs.

n/a – not applicable due to significant changes in funding and recording



## Palliative Care

### Services Received at Home by Palliative Patients FY 2016/2017

	Provincial Ranking	LHIN	Range Across MH sub-regions
Percent of patients who received palliative home visits(home servicers or physician) in the last 90 days of life	5	32%	25% to 38%
Percent of patients who received palliative home servicers in the last 90 days of life	4	21%	18% to 27%
Percent of patients who had physician home visits in the last 90 days of life	6	27%	17% to 35%
Percent of patients who receive palliative home services who died in hospital	11	24%	10% to 38%
Percent of palliative care patients discharged home from hospital with the discharge status "Home with Support"	11	87%	80% to 94%
Mean days spent at home/residence in last 6 months of life	3	157 days	155 to 159 days

*†Ranking in the province, compared to other LHINs.*

### Interpretation

- In 2016/2017, 32% of patients in Mississauga Halton LHIN received palliative home visits in the last 90 days of life, which is 4% lower than the provincial value.
  - Within the Mississauga Halton LHIN, the [Milton](#) sub-region reported 25% of patients received palliative home visits in the last 90 days of life, where [Oakville](#) sub-region had the highest percentage at 38%.
- In 2016/2017, the percent of patients in Mississauga Halton LHIN who received palliative home servicer visits in the last 90 days of life was lower than the province (21% vs 25%, respectively).
  - [South West Mississauga](#) and [Oakville](#) reported that 25% and 27%, respectively, patients received home servicer visits in the last 90 days of life, which were the highest in the Mississauga Halton LHIN. [South Etobicoke](#) reports the lowest percentage among the sub-regions (18%).
- In the Mississauga Halton LHIN, the percentage of patients who received physician home visits in the last 90 days of life was 26%, slightly lower than the provincial percentage (28%).
  - [Oakville](#) sub-region reported the highest percentage at 35%. [Milton](#) reported the lowest percentage of patients who received physician home visit in the last 90 days of life at 17%.
- Across Ontario, Mississauga Halton LHIN reported that 26% of patients who received palliative home services who died in hospital, which is marginally higher than the provincial percentage of 25%.
  - There is notable variation of percentages of patients who received palliative care who died in hospital across Mississauga Halton sub-regions.
  - The [Halton Hills](#) sub-region has the lowest percentage of palliative patients dying in hospital at 10%. On the other hand, [North West Mississauga](#) reports 38% of patients who receive palliative care died in hospital.

- Across LHINs, Mississauga Halton reports that 87% of palliative care patients discharged home with “Home with Supports” status in 2016/2017, the fourth highest rate in Ontario.
  - Within Mississauga Halton, the sub-regions vary from 80% in [Halton Hills](#) to 94% in [South West Mississauga](#) regarding palliative patients discharged with “Home with Supports” status.
- Mississauga Halton LHIN’s mean number of days at home among palliative patients in the last 6 months across all LHINs was 157 days, which is 3 days shorter than the provincial value.
  - Mississauga Halton sub-regions are close in mean number of days that palliative patients spend at home in their last 6 months, ranging from 155 days in [Oakville](#) and [East Mississauga](#) to 159 days in [Milton](#).

#### **Palliative Hospital System Indicators, Mississauga Halton (FY 2016/17)**

	<b>Provincial Ranking</b>	<b>LHIN</b>	<b>Range Across the Sub-regions</b>
Percent of patients who had one or more unplanned ED visits in the last 30 days of life	10	55%	50% - 60%
Percent of patients who had two or more unplanned ED visits in the last 30 days of life	2	12%	10% - 15%
Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days	8	21%	13% - 32%
Percent of people who died in hospital (all hospital settings and acute only)	11	57%	52% - 61%
Percent of people who died in acute hospital	12	49%	39% - 56%
Percent of patients who had two or more acute inpatient admissions in the last 30 days of life	4	5%	3% - 7%

#### **LHIN Comparison**

- Mississauga Halton LHIN was **significantly higher** than the province in percent of people who died in hospital (all hospital settings and acute only) and percent of people who died in acute hospital. It was **significantly lower** than the province in percent of patients who had two or more unplanned ED visits in the last 30 days of life.
  - For percent of patients who had one or more unplanned ED visits in the last 30 days of life, [Oakville](#) sub-region was **significantly lower** than the province.
  - For percent of patients who had two or more unplanned ED visits in the last 30 days of life, the following sub-regions were **significantly lower** than the province: [East Mississauga](#), [Oakville](#), [North West Mississauga](#), [South West Mississauga](#), and [South Etobicoke](#).
  - For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, [Oakville](#) sub-region was **significantly lower** than the province. [North West Mississauga](#) was **significantly higher**.
  - For percent of people who died in hospital (all hospital settings and acute only), [East Mississauga](#) and [North West Mississauga](#) were **significantly higher** than the province.

- For percent of people who died in acute hospital, **Oakville** sub-region was **significantly lower** than the province. The following sub-regions were **significantly higher** than the province: **East Mississauga**, **North West Mississauga**, and **South West Mississauga**.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, **Oakville** sub-region was **significantly lower** than the province.

### Change Over Time

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, an average annual growth rate of 1% was observed across the Mississauga Halton LHIN ranking 1st provincially.
  - Across sub-regions, **South West Mississauga** (3%) and **South Etobicoke** (-2%) were observed highest and lowest, respectively.
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, an average annual growth rate of 1% was observed across the Mississauga Halton LHIN ranking 6th provincially.
  - Across sub-regions, **North West Mississauga** (2%) and **Halton Hills** (-2%) were observed highest and lowest, respectively.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, an average annual growth rate of -2% was observed across the Mississauga Halton LHIN ranking 11th provincially.
  - Across sub-regions, **Milton** (10%) and **South West Mississauga** (-8%) were observed highest and lowest, respectively.
- For percent of people who died in hospital (all hospital settings and acute only), an average annual growth rate of -1% was observed across the Mississauga Halton LHIN ranking 2nd provincially.
  - Across sub-regions, **Halton Hills** (1%) and **South Etobicoke** (-3%) were observed highest and lowest, respectively.
- For percent of people who died in acute hospital, an average annual growth rate of 0% was observed across the Mississauga Halton LHIN ranking 1st provincially.
  - Across sub-regions, **South West Mississauga** (2%) and **South Etobicoke** (-3%) were observed highest and lowest, respectively.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, an average annual growth rate of -3% was observed across the Mississauga Halton LHIN ranking 12<sup>th</sup> provincially.
  - Across sub-regions, **South Etobicoke** (1%) and **Oakville** (-8%) were observed highest and lowest, respectively.

## Emergency Department

### Emergency Department Utilization

- In 2016/17, there were 418,458 ED visits to Mississauga Halton LHIN hospitals, an increase of 9.5% from 2013/14. In the same time-period, the number of ED visits in the province increased by 6.5%.
- Mississauga Halton's crude ED visit rate of 301.7 ED visits per 1,000 population was lowest in the province, well below the provincial rate (442.2). This represented a 1.2% increase in crude visit rate in the LHIN from 2013/14 during which time the provincial crude visit rate climbed by 3.0%.
- Age adjusted ED visit rates per 1,000 population were highest for seniors 80+ at 813 visits per 1,000 population, followed by seniors aged 65-79 (380 visits / 1,000 population), children aged 0-17 (295 visits per 1,000 population), adults aged 45-64 years (269 visits per 1,000 population) while adults aged 18-44 years had the lowest usage rate in LHIN at 263 visits per 1,000 population, or less than 40% of the highest user age group.
  - **North West Mississauga** residents had the lowest ED visit rate of Mississauga Halton's 7 sub-regions, at 252 visits per 1000 population.
  - **Milton** sub-region had the highest crude ED visit rate in the LHIN at 415 visits per 1,000 population.
  - Overall, all 7 of Mississauga Halton's 7 sub-regions had crude ED visit rates below the provincial value.
- Between 2013/14 and 2016/17 the number of Mississauga Halton LHIN residents visiting the ED with lower acuity levels (CTAS IV and V) decreased 10.6% to 99,173 visits. During this same time-period, visits by Ontario residents with CTAS IV and V declined 2.2%.
- Between 2013/14 and 2016/17 the number of visits with CTAS III increased by 10.0% and CTAS I & II increased by 26.6%, while provincially these numbers increased by 9.4% and 15.8% respectively.
- Overall, Mississauga Halton LHIN ranked 2<sup>nd</sup> lowest in the province in proportion of ED visits by residents that were lower acuity (26.0% for Mississauga Halton, and 33.5% for the province).
  - 7 out of 7 of Mississauga Halton's sub-regions had a lower proportion of ED visits with lower acuity (CTAS IV and V) than the province.
  - **Milton** had the lowest proportion of ED visits with lower acuity of the LHIN's 7 sub-regions, at 18.0%, while **South Etobicoke** had the highest at 37.8%.
- The most common causes for ED visits by Mississauga Halton LHIN residents were diseases or disorders of the digestive system, diseases or disorders of the skin & breast, and other diseases or disorders cardiac system and accounted for 11.1%, 7.2%, and 6.7% of ED visits by Mississauga Halton LHIN residents respectively.
- Follow-up examinations and other non-emergent conditions ranked 8<sup>th</sup> as a cause of ED visits and accounted for 4.4% of ED visits by Mississauga Halton LHIN residents.
- 13.7% of the patients who visited ED in Mississauga Halton LHIN hospitals arrived via ambulance in FY16/17, as compared to 15.6% for the province.
  - The proportion of ED visits that arrived by ambulance ranged from a low of 11.5% in **Milton** sub-region to a high of 17.4% in **South West Mississauga**.
- 10.3% of the patients who visited ED in Mississauga Halton LHIN hospitals were admitted in FY16/17, as compared to 9.8% for the province.
  - The proportion of ED visits that resulted in a patient being admitted to hospital ranged from a low of 9.0% in **Milton** sub-region to a high of 12.9% in **South West Mississauga**, the 5<sup>th</sup> highest admission rate for a sub-region in the province.
- 3.1% of the patients who visited ED in Mississauga Halton LHIN hospitals left without completing treatment in FY16/17, as compared to 3.9% for the province. Mississauga Halton ranked 12<sup>th</sup> in the province in visits that left without completing treatment.

- 22.3% of ED visits to Mississauga Halton LHIN hospitals were by patients who did not reside in Mississauga Halton LHIN (inflow). This compares to 14.7% of ED visits by Mississauga Halton LHIN residents that were accessed in other LHINs (outflow).

#### Top 10 Reasons for Emergency Department Visits by LHIN, 2016/17

Leading CACS groups, by LHIN of patient	Mississauga Halton	
	#	% of total visits
(B128) Disease or Disorder Digestive System	42,316	11.1%
(B132) Disease or Disorder Skin & Breast	27,310	7.2%
(B122) Other Disease or Disorder Cardiac System	25,668	6.7%
(B112) Disease or Disorder Ear, Nose or Throat	22,672	5.9%
(B136) Disease or Disorder Musculoskeletal and Connective Tissue	22,298	5.9%
(B180) Contusion, Dislocation, Nerve & Other Soft Tissue Injury	21,654	5.7%
(B005) Other Condition with Acute Admission/Transfer	20,207	5.3%
(B187) Follow-up Examination and Other Non Emergent Condition	16,762	4.4%
(B188) Open Wound and Vascular Injury	16,597	4.4%
(B116) Disease or Disorder Respiratory System	15,663	4.1%

Measure—LHIN of Hospital	Mississauga Halton		Ontario	
	#	LHIN % change 2013/14- 2016/17	#	Ontario % change 2013/14- 2016/17
Visits	418,458	9.5%	6,312,121	6.5%
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	111,754	33.5%	1,284,741	15.9%
III (urgent)	192,095	14.2%	2,876,687	9.6%
IV & V (less urgent/non urgent)	114,298	-11.8%	2,128,914	-2.0%
<b>% visits by CTAS level†</b>				
I & II (resuscitation/emergent)	26.7%		20.4%	
III (urgent)	45.9%		45.6%	
IV & V (less urgent/non urgent)	27.3%		33.7%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	13.7%		15.6%	
% of visits that were admitted	10.3%		9.8%	
% of visits that left without completing treatment	3.1%		3.9%	
<b>% Inflow visits</b>	22.3%			

Measure—LHIN of Patient	Mississauga Halton		Ontario	
	#	LHIN % change 2013/14-2016/17	#	Ontario % change 2013/14-2016/17
Visits	381,044	7.3%	6,183,151	6.4%
ED visit rate/1,000 population	301.7	1.2%	442.2	3.0%
<b>Age-specific ED visit rates per 1,000 population</b>				
ED visit rate, age 0-17 years	295		429	
ED visit rate, age 18-44 years	263		411	
ED visit rate, age 45-64 years	269		388	
ED visit rate, age 65-79 years	380		516	
ED visit rate, age 80+ years	813		913	
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	103,541	26.6%	1,265,237	15.8%
III (urgent)	178,006	10.0%	2,825,385	9.4%
IV & V (less urgent/non urgent)	99,173	-10.6%	2,070,962	-2.2%
<b>% visits by CTAS level</b>				
I & II (resuscitation/emergent)	27.2%		20.5%	
III (urgent)	46.7%		45.7%	
IV & V (less urgent/non urgent)	26.0%		33.5%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	15.7%		15.8%	
% of visits that were admitted	11.4%		9.9%	
% of visits that left without completing treatment	3.0%		3.8%	
% Outflow visits	14.7%			

ED Visit Utilization Summary, by sub-region of Patient Residence, 2016/17 Mississauga Halton LHIN

	East Mississauga	Halton Hills	Milton	Oakville	North West Mississauga	South West Mississauga	South Etobicoke	LHIN	Ontario
<b>Sub-Region of Patient Residence</b>									
Visits	95,803	23,957	39,114	58,922	73,216	41,841	48,200	381,044	6,183,151
ED visit rate/1,000 population	297	359	415	284	252	265	390	301.7	442
% Outflow to other LHINs	10.4%	11.5%	10.4%	11.1%	10.3%	10.6%	43.1%	14.7%	
<b>Age-specific ED visit rates per 1,000 population</b>									
ED visit rate, age 0-17 years	281	340	450	279	238	249	402	295	429
ED visit rate, age 18-44 years	254	341	362	251	224	247	295	263	411
ED visit rate, age 45-64 years	272	305	372	238	240	222	372	269	388
ED visit rate, age 65-79 years	363	437	558	343	349	322	517	380	516
ED visit rate, age 80+ years	783	961	1076	815	762	627	1000	813	913
<b># visits by CTAS level</b>									
# CTAS Level I & II visits	26287	4720	10147	15913	23724	13209	9544	103,541	12715
# CTAS Level III visits	42138	12840	21900	30553	32407	17785	20386	178,006	20741
# CTAS Level IV & V visits	27327	6394	7050	12439	16953	10778	18235	99,173	13353
<b>% visits by CTAS level</b>									
I & II (resuscitation/emergent)	27.4%	19.7%	25.9%	27.0%	32.4%	31.6%	19.8%	27.2%	20.5%
III (urgent)	44.0%	53.6%	56.0%	51.9%	44.3%	42.5%	42.3%	46.7%	45.7%
IV & V (less urgent/non urgent)	28.5%	26.7%	18.0%	21.1%	23.2%	25.8%	37.8%	26.0%	33.5%
<b>Other visit characteristics</b>									
% of visits that arrived by ambulance	17.1%	13.5%	11.5%	17.3%	14.0%	17.4%	16.7%	15.7%	15.8%
% of visits that were admitted	12.1%	9.0%	9.0%	11.8%	11.1%	12.9%	11.6%	11.4%	9.9%
% of visits that left without completing treatment	3.0%	3.4%	3.5%	3.0%	3.2%	3.0%	2.3%	3.0%	3.8%



### Emergency Department Performance

- Since fiscal year 2013/14, 90th percentile ambulance offload time decreased to 32 minutes (less than the provincial value rate of 46 minutes) in fiscal year 2017/18.
- ED Volumes in Mississauga Halton LHIN increased from fiscal year 2013/14 (382,295) to 2017/18 (428,721).
- ED LOS - 90<sup>th</sup> Percentile increased from fiscal year 2013/14 (seven hours) to 2017/18 (nine hours).
- ED Volumes for Non-Admitted Low Acuity decreased since fiscal year 2013/14 to 115,021 in fiscal year 2017/18, whereas ED Volumes - Non-Admitted High Acuity increased to 268,682 during the same timeframe.
- ED LOS for Admitted - 90th Percentile increased since fiscal year 2013/14 to 38 hours in fiscal year 2017/18.
- The proportion of visits that were admitted within 8 hours decreased from 45% in fiscal year 2013/14 to 28% in fiscal year 2014/15.

## Emergency department visits, Mississauga Halton LHIN

Measure	Fiscal Year					Range across sites, FY 17/18
	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	
All emergency department visits						
ED Volumes (All)	382,295	393,400	406,277	418,458	428,721	33,756 - 107,703
Ambulance Offload Time - 90th Percentile (mins)	55	43	40	38	32	20 - 51
Time to PIA - 90th percentile	3	3	3	3	3	2 - 4
% with Time to PIA <= 2 Hours	77%	75%	75%	72%	71%	63% - 90%
Consult Request to Arrival - 90th Percentile	4	4	4	4	4	0 - 5
% of Consults with Consult Request to Arrival <= 2 Hrs	76%	76%	77%	77%	75%	66% - 100%
Time to Disposition (All) - 90th Percentile	7	7	7	7	8	4 - 9
ED LOS - 90th Percentile	7	7	8	8	9	5 - 14
Non-admitted low acuity ED visits						
ED Volumes - Non-Admitted Low Acuity	128,583	122,062	119,896	113,701	115,021	7,125 - 43,167
% Within Target of 4 Hrs - Non-Admitted Low Acuity	93%	94%	93%	92%	92%	90% - 93%
Time to Disposition for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	4	4 - 4
ED LOS for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	4	4 - 4
Non-admitted high acuity ED visits						
ED Volumes - Non-Admitted High Acuity	212,684	229,353	243,847	261,298	268,682	21,231 - 74,140
% Within Target of 8 Hrs - Non-Admitted High Acuity	97%	97%	96%	96%	94%	89% - 99%
Time to Disposition for Non-Admitted High Acuity - 90th Percentile	7	7	7	7	8	5 - 9
ED LOS for Non-Admitted High Acuity - 90th Percentile	6	6	6	7	7	5 - 8
Admitted ED visits						
ED Volumes - Admitted	40,318	41,077	41,818	43,150	44,927	5 - 16,603
Admission Rate - CTAS 1	59%	56%	56%	54%	54%	0% - 61%
Admission Rate - CTAS 2	27%	26%	25%	24%	24%	0% - 28%
Admission Rate - CTAS 3	9%	9%	8%	8%	8%	0% - 13%
Admission Rate - CTAS 4	1%	1%	1%	1%	1%	0% - 2%
Admission Rate - CTAS 5	0%	0%	0%	0%	0%	0% - 1%
Time to Disposition for Admitted - 90th Percentile	11	11	12	12	13	9 - 13
ED LOS for Admitted - 90th Percentile	31	35	31	41	38	17 - 42
% Within Target of 8 Hrs - Admitted	45%	41%	36%	29%	28%	23% - 50%
Time to Inpatient Bed - 90th Percentile	25	28	24	32	29	12 - 32

## Acute Care

### Acute Care Utilization by Residents of the Mississauga Halton LHIN

#### Acute Separations

- In 2016/17, there were 72,447 acute separations (discharges), 400,206 acute days, and 470,190 total days (including acute and alternate level of care days) for Mississauga Halton LHIN residents.
- The acute separation rate for Mississauga Halton LHIN residents was 57 separations per 1,000 residents in 2016/17, the lowest among Ontario's LHINs.
  - Rates were the lowest for residents of the [North West Mississauga](#) sub-region and highest for residents of [Milton](#).
- From 2013/14 to 2016/17, the overall acute separation rate for Mississauga Halton LHIN residents declined by 2.6%.
  - Residents of the [North West Mississauga](#), [South West Mississauga](#), and [Oakville](#) sub-regions were ranked among the lowest 8 Ontario sub-regions for the rate of acute separations per 1,000 residents – with rates much lower than Ontario. [North West Mississauga](#) having the lowest rate among all Ontario sub-regions.
  - [Halton Hills](#) had the 7<sup>th</sup> lowest volume of separations by LHIN of hospital and [South Etobicoke](#) had the 8<sup>th</sup> lowest (2,943 and 3,062, respectively)

#### Acute Days

- The rate of acute days for Mississauga Halton LHIN residents was 317 acute days per 1,000 residents in 2016/17, the 2nd lowest rate amongst LHINs.
  - Rates were the lowest for residents of the [North West Mississauga](#) sub-region (245) and highest for [South Etobicoke](#) (435) in 2016/17.
  - Among sub-regions, residents of the [North West Mississauga](#) sub-region were among the lowest Ontario sub-regions for the rate of acute days per 1,000 residents.

#### Mean Length of Stay

- The mean total length of stay (including acute days and days waiting for an alternate level of care) for Mississauga Halton LHIN residents was 6.5 days, while the mean acute length of stay was 5.5 days in 2016/17.
  - Acute length of stay varied among Mississauga Halton LHIN sub-regions. [Milton](#) was the lowest ranking Ontario sub-region, and [South West Mississauga](#) and [South Etobicoke](#) among the highest for acute length of stay.
  - Total length of stay varied among Mississauga Halton LHIN sub-regions as well, with [Milton](#) as the lowest ranking Ontario sub-region, and [South Etobicoke](#) among the highest ranking Ontario sub-regions for total length of stay.

#### HIG Weight

- The Ontario HBAM Inpatient Grouper (HIG) (Similar to CMG+) aggregates acute care separations with similar resource use and clinical characteristics based on most responsible diagnosis and/or principal intervention. The HIG weight is a relative cost value that reflects the resources consumed during each acute care stay. The mean HIG weight for Mississauga Halton LHIN residents increased from 1.49 2014/15 to 1.54 in 2016/17 – a change of 3.4% - and slightly below the provincial value (1.55).
- The top 3 HIGs accounting for the highest proportion of acute care days for Mississauga Halton LHIN residents in 2016/17 were: 196-heart failure without coronary angiogram, 138-viral/unspecified pneumonia, and 810-palliative care.

## Acute Care Hospital Utilization (Excluding ALC) LHIN of Patient, Mississauga Halton LHIN, 2016/17

	Mississauga Halton LHIN Residents	Ontario Residents*	Rank among LHINs	Range across MH sub-regions
<b>Acute Care Measures</b>				
Total Population	1,263,117	13,982,984		66,759 – 322,438
Acute Separations	72,447	1,028,979		4,157 – 18,313
Acute Separation Rate per 1,000 Population	57	74	Lowest	49 - 75
Acute Days	400,206	5,455,693		21,332 – 106,959
Acute Days Rate per 1,000 Population	317	390	2 <sup>nd</sup> Lowest	245 – 435
Total Days	470,190	6,477,528		31,181 – 131,340
Total Days Rate per 1,000 Population	372	463		276 – 528
Mean Acute LOS	5.5	5.3	4 <sup>th</sup> Lowest	4.2 – 6.3
Mean Total LOS	6.5	6.3		4.4 – 7.6
Mean HIG Weight	1.54	1.55		—
<b>Leading HIGs (Acute Care Days)†</b>				
(196) Heart Failure w/o Coronary Angiogram	12,558	175,995		649 – 3,317
(138) Viral/Unspecified Pneumonia	10,122	119,810		589 – 2,527
(810) Palliative Care	8,574	110,197		210 – 2,802

\* Ontario residents exclude Out-of-province

† Leading HIGs include Out-of-province for Ontario Values

### Analysis of Acute Care Utilization for Mississauga Halton LHIN Facilities

- There were 70,675 acute separations, 383,723 acute days, and 452,406 total days at Mississauga Halton LHIN hospitals in 2016/17.

### Separations

- Separations increased by 5.9% between 2013/14 and 2016/17. During this same period, for Ontario hospitals overall, separations increased by 3.8%.

### Acute Days

- Acute days increased by 8.2% between 2013/14 and 2016/17. Acute days increased by 2.2%, for all Ontario hospitals overall, during this same period.
- Mean acute length of stay for 2016/17 at hospitals in the Mississauga Halton LHIN was 5.4 days. This is higher than the provincial result of 5.3 days.

### Total Days

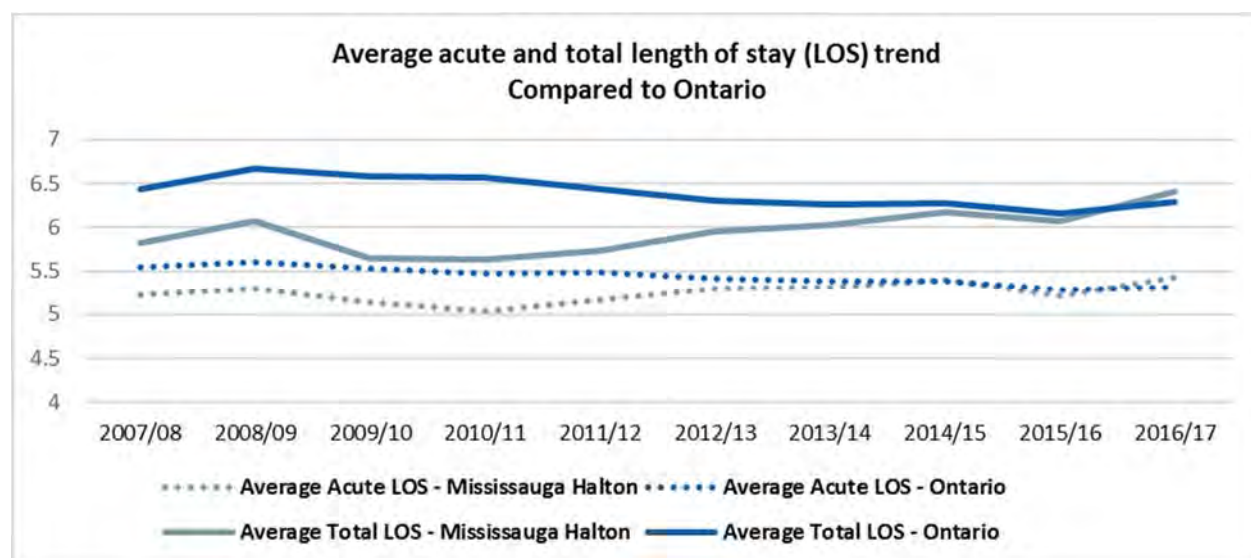
- Total days increased by 12.5% between 2013/14 and 2016/17. Overall Ontario hospitals had an increase of 4.2% of total days during this period.
- Mean total length of stay for this LHIN was 6.4 days. Higher than mean total length of stay for Ontario, which was 6.3 days.

### HBAM Group (HIG) Weight

- Mean HIG weight for Mississauga Halton LHIN hospitals in 2016/17 of 1.48 was lower than the provincial value of 1.55.

### Acute care hospital utilization, Mississauga Halton LHIN, 2016/17

Measure	Mississauga Halton LHIN	Ontario hospitals	Comments	LHIN % change 2013/14 - 2016/17	Range within LHINs
Acute separations	70,675	1,041,308		5.9%	26,295 - 159,315
Total days	452,406	6,542,800		12.5%	193,259 - 1,050,391
Mean total LOS	6.4	6.3			5.0 - 7.3
Acute days	383,723	5,518,912		8.2%	142,875 - 917,167
Mean acute LOS	5.4	5.3			4.5 - 5.8
Mean HIG weight	1.48	1.55			1.23 - 1.94



### Acute Care Inflow/Outflow

#### Inflow

- 21.7% of hospital separations from Mississauga Halton LHIN hospitals were by non- Mississauga Halton LHIN residents

#### Outflow

- 23.7% of separations for Mississauga Halton LHIN residents were from hospitals outside Mississauga Halton LHIN
  - By sub-region, **South Etobicoke** had the **highest** proportion of outflow to other LHINs at 64.3%

### Inflow - Outflow, Mississauga Halton LHIN, 2016/17

Measure	Mississauga Halton LHIN	Ontario Hospitals	Comments	Range across MH sub-regions
Acute separations, LHIN of hospital	70,676	1,041,322		2,943 – 15,009
Acute separations, LHIN of patient	72,448	1,041,322		4,157 – 18,314
% inflow	21.7%			NA
% outflow	23.7%			15.7% - 64.3%

## Post-Acute Care

### Inpatient Rehabilitation Utilization

#### Rehabilitation Admissions

- The number of total rehabilitation admissions at the LHIN hospitals, including both general admissions and special admissions, was 2,639 in FY 16/17, an increase of 8.2% from FY 13/14.
  - The number of general rehabilitation admissions was 2,639 in FY 16/17, an increase of 8.2% from FY 13/14.
- The number of total rehabilitation admissions of the LHIN residents, was 2,853 in FY 16/17, an increase of 4.8% from FY 13/14.

#### Active Cases and Discharges

- In FY 16/17, the number of active cases was 3,821 while the number of discharges was 2,648.

#### Inpatient Days

- The number of total inpatient days was 66,741 in FY 16/17.
- The mean length of stay at the LHIN hospitals was 25.2 days.
- By sub-region of patient residence:
  - **Halton Hills** residents had the longest length of stay at 29.1 days.
  - **Milton** residents had the shortest length of stay at 24.3 days.

#### Admission Rate

- The number of admissions per 100,000 adults (age 18+) was 286.0 in FY 16/17, a decrease of 2.1% from FY 13/14.
  - Age group 18-44 years had the lowest admission rate, 26.9 per 100,000 population.
  - Age group 80+ years had the highest admission rate, 3,243.1 per 100,000 population.
- By sub-region of patient residence:
  - **South Etobicoke** residents had the highest admission rate at 419.8.
  - **Milton** residents had the lowest admission rate at 127.1.

#### Active Case Rate

- The number of active cases per 1,000 population age 18+ was 395.1.

#### Discharge Rate

- The number of discharges per 1,000 population age 18+ was 286.7.

#### Leading Rehabilitation Group

- The 5 leading rehabilitation groups that contributed to the total admissions in FY 16/17 were:
  - Other disabilities accounted for 997 admissions or 34.9% of the total admissions.
  - Stroke accounted for 370 admissions or 13.0% of the total admissions.
  - Fracture of lower extremity accounted for 354 admissions or 12.4 % of the total admissions.
  - Non-traumatic brain injury accounted for 227 admissions or 8.0% of the total admissions.
  - Replacement of lower extremity accounted for 193 admissions or 6.8% of the total admissions.

#### Outflow

- Hospitals outside the LHIN accounted for 20.4% of the total rehabilitation admissions of the LHIN residents

- By sub-region of patient residence:
  - **South Etobicoke** residents had the highest rate of admission to hospitals outside the LHIN at 55.2%.
  - **Oakville** residents had the lowest rate of admission to hospitals outside the LHIN at 9.7%.

#### Inflow

- 13.9% of the rehabilitation admissions at the hospitals in the LHIN were residents from outside Mississauga Halton.

Rehab Admissions, Active Cases, Discharges and Days*	LHIN	Ontario	Ranking Among LHINs**	% Change 2013/14-2016/17	Range across sub-region
<b>LHIN of hospital</b>					
General admissions	2,639	28,691		8.2%	
Special admissions		4,444			
Total admissions	2,639	33,135		8.2%	
% Inflow inpatient rehab admissions	13.9%				
Active Cases	3,821	43,329			
Discharges	2,648	33,133			
Total Days (discharged cases only)	66,741	839,228			
Mean Length of Stay (discharged cases only)	25.2	25.3			
<b>LHIN of patient</b>					
Total population age 18+	997,668	11,287,810		6.8%	
Total admissions	2,853	33,016		4.8%	85-915
Admissions/100,000 population age 18+	286.0	292.5		-2.1%	127.1-419.8
Admissions/100,000 population age 18-44 years	26.9	30.4	4 <sup>th</sup> lowest		8.5-36.8
Admissions/100,000 population age 45-64 years	126.5	150.9	4 <sup>th</sup> lowest		78.0-214.2
Admissions/100,000 population age 65-79 years	712.3	689.3			389.8-1,007.8
Admissions/100,000 population age 80+ years	3,243.1	2,311.8	2 <sup>nd</sup> highest		1,481.5-3,652.2
% Outflow inpatient rehabilitation admissions	20.4%				9.7%-55.2%
Active cases per 1,000 population age 18+	395.1	382.3			205.0-529.8
Discharges per 1,000 population age 18+	286.7	292.5			129.9-422.7
Mean Length of Stay (discharged cases only)	25.6	25.3			24.3-29.1



	East Mississauga	Halton Hills	Milton	Oakville	North West Mississauga	South West Mississauga	South Etobicoke
Measure							
Rehab Admissions	915	85	88	464	451	419	431
Rehab Admission Rate per 100,000 Population	345.6459	167.5	127.1	290.5	203.3	325.7	419.8
Rehab Active Cases	1165	114	142	739	625	613	544
Rehab Active Case Rate per 100,000 Population	440.0847	224.6	205.0	462.6	281.7	476.5	529.8
Rehab Discharges	920	85	90	459	454	418	434
Rehab Discharge Rate per 100,000 Population	347.5347	167.5	129.9	287.4	204.6	324.9	422.7
Total Inpatient Days (discharged cases only)	22670	2,477	2,187	12,408	11,814	11,028	10,740
Mean LOS (discharged cases only)	24.6413	29.1	24.3	27.0	26.0	26.4	24.7
<b>Age specific admission rates per 100,000 population</b>							
18-44 years	30.66946	22.2	29.6	8.5	25.6	35.4	36.8
45-64 years	159.9814	82.5	78.0	90.2	111.5	114.6	214.2
65-79 years	879.4925	495.9	389.8	581.5	606.8	628.7	1,007.8
80+ years	3144.392	1,481.5	1,900.5	3,596.9	3,402.3	3,428.7	3,652.2

## Complex Continuing Care Utilization

### Complex Continuing Care

- In 2016/17, there were 1,455 CCC active cases treated in Mississauga Halton LHIN hospitals and residents from outside the LHIN accounted for 9.5% of these active cases. In 2016/17, there were 1,196 admissions and 1,180 discharges from Mississauga Halton LHIN hospital CCC units. Mississauga Halton LHIN hospitals had a mean LOS of 107.5 days - ranking 13th across LHINs.
- There were reductions in the number of active cases (-4.0%), admissions (-3.9%), and discharges (-7.6%) for Mississauga Halton LHIN hospital CCC units between 2013/14 and 2016/17, while there was an 11.4% increase in total days.
- During the period, the mean length of stay in CCC beds increased from 89.2 days to 107.5 days.
- In 2016/17, there were 1,889 CCC active cases for Mississauga Halton LHIN residents, and 30.3% of these cases were treated in hospitals outside the LHIN.
- The active case rate for Mississauga Halton LHIN residents was lower than the provincial value.

### Utilization of Complex Continuing Care, Mississauga Halton LHIN and Ontario, 2016/17

Measure	Mississauga Halton LHIN		Ontario	
	LHIN Values	% Change 2013/14-2016/17	Provincial Value	% Change 2013/14- 2016/17
<b>LHIN of Hospital</b>				
Active Cases	1,455	-4.0%	29,466	-0.1%
% Inflow	9.5%			
Admissions	1,196	-3.9%	24,108	0.5%
Discharges	1,180	-7.6%	23,995	-0.2%
Total Days	126,892	11.4%	1,855,227	-2.0%
Mean LOS	107.5		77.3	
<b>LHIN of Patient</b>				
Active Cases	1,889	12.2%	29,366	0.3%
Active cases/100,000 population	149.6	5.8%	210.0	-2.9%
% Outflow	30.3%			
Admission	1,518	12.5%	24,022	0.8%
Admissions/100,000 population	120.2		171.8	
Discharges	1,514	8.8%	23,908	0.1%
Discharges/100,000 population	119.9		171.0	
Total Days	154,915	15.6%	1,850,599	-1.1%
Mean LOS	102.3		77.4	

## Alternate Level of Care

### LHIN overview

Mississauga Halton LHIN						
Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Rank
Acute ALC Days (closed cases)	47,554	52,646	58,121	68,681	NV	8
% ALC Days (Acute Inpatient closed cases)	11.8%	12.6%	14.0%	15.2%	NV	7
Volume of Closed Cases	2,688	2,852	2,924	3,452	3,567	7
Volume of Closed Cases - Complex Continuing Care	387	405	402	406	378	
Volume of Closed Cases - Home with CCAC Services	577	639	710	803	898	
Volume of Closed Cases – Rehabilitation	912	891	952	1,248	1,219	
90 <sup>th</sup> Percentile Wait of Closed Cases (Days)	37	41	46	54	60	10
90 <sup>th</sup> Percentile Wait of Closed Cases - Complex Continuing Care	27	33	35	69	94	
90 <sup>th</sup> Percentile Wait of Closed Cases - Home with CCAC Services	51	38	35	50	46	
90 <sup>th</sup> Percentile Wait of Closed Cases - Rehabilitation	15	14	14	15	18	
Volume of Open Cases on the last day of the year	164	172	229	263	228	6
Volume of Open Cases - Complex Continuing Care	26	27	41	33	34	
Volume of Open Cases - Home with CCAC Services	66	50	62	74	62	
Volume of Open Cases - Long Term Care	19	38	72	97	69	
90 <sup>th</sup> Percentile Wait of Open Cases	161	180	220	337	233	7
90 <sup>th</sup> Percentile Wait of Open Cases - Complex Continuing Care	505	168	130	96	157	
90 <sup>th</sup> Percentile Wait of Open Cases - Home with CCAC Services	125	60	173	105	179	
90 <sup>th</sup> Percentile Wait of Open Cases - Long Term Care	328	375	319	480	676	
Throughput Ratio (discharged case/newly added cases)	0.99	1.00	0.98	0.99	1.00	14
% of Cases Designated ALC Within 1 Day	2.6%	3.9%	3.0%	3.1%	4.9%	5
% of Cases Designated ALC Within 2 Days	5.6%	6.8%	6.2%	6.3%	9.2%	5
% of Cases Designated ALC Within 3 Days	10.8%	10.8%	11.3%	12.1%	14.5%	5
ALC Rate - All Inpatient Services	8.7%	9.6%	11.3%	14.2%	14.5%	7
ALC Rate - Acute Inpatient Services	11.3%	12.0%	13.7%	17.3%	18.3%	9
ALC Rate - Post-Acute Inpatient Services	3.1%	4.3%	6.0%	7.3%	6.5%	2
ALC Rate - CCC Inpatient Services	2.7%	3.8%	5.7%	6.7%	5.9%	2
ALC Rate - Rehab Inpatient Services	2.4%	2.7%	4.7%	5.3%	5.4%	5
ALC Rate - Mental Health Inpatient Services	5.4%	7.7%	8.9%	11.5%	9.3%	9

## Closed ALC Cases

### Acute ALC Days

- Acute ALC Days increased by 21,127 from FY 13/14 to FY 16/17.

### % ALC Days (Acute Inpatient)

- % ALC Days increased from 11.8% in FY 13/14 to 15.2% in FY 16/17.

### Volume of Closed Cases

- The volume of closed cases for all inpatient services increased by 33% from 2,688 in FY 13/14 to 3,567 in FY 17/18.
  - Complex Continuing Care – number of closed cases decreased by 2% from 387 in FY 13/14 to 378 in FY 17/18.
  - Home with CCAC Services – number of closed cases increased by 56% from 577 in FY 13/14 to 898 in FY 17/18.
  - Long-term Care – number of closed cases increased by 34% from 912 in FY 13/14 to 1,219 in FY 17/18.

### 90<sup>th</sup> Percentile Wait of Closed Cases

- The wait time for closed cases (all inpatients services and all discharge destinations) increased by 62% from 37 days in FY 13/14 to 60 days in FY 17/18. 5<sup>th</sup> in Mississauga Halton at the end of FY 17/18.
  - Complex Continuing Care – wait time increased by 248% from 27 days in FY 13/14 to 94 days in FY 17/18.
  - Home with CCAC Services – wait time decreased by 10% from 51 days in FY 13/14 to 46 days in FY 17/18.
  - Rehabilitation – wait time increased by 20% from 15 days in FY 13/14 to 18 days in FY 17/18.

### Wait Time by Sub-Region of Patient Residence

- **South West Mississauga** residents had the longest wait at 69 days; **Milton** had the shortest at 28 days.

## Open ALC Cases

### Volume of Open Cases

- The number of ALC waitlist entries open across all inpatient bed types increased by 39% from 164 at the end of FY 13/14 to 228 at the end of FY 17/18.
  - Complex Continuing Care –has number of open cases increased by 31% from 26 at the end of FY 13/14 to 34 at the end of FY 17/18.
  - Home with CCAC Services – number of open cases decreased by 6% from 66 at the end of FY 13/14 to 62 at the end of FY 17/18.
  - Long-term Care – number of open cases increased by 263% from 19 at the end of FY 13/14 to 69 at the end of FY 17/18.

### 90<sup>th</sup> Percentile Wait of Open Cases

- The wait time for open cases (all inpatients services and all discharge destinations) increased by 45% from 161 days at the end of FY 13/14 to 233 days at the end of FY 17/18. Patients awaiting discharge from Mississauga Halton LHIN hospitals had waited 173 days longer than patients who were discharged in 17/18, and had waited the 8<sup>th</sup> longest across LHINs at the end of FY 17/18.

- Complex Continuing Care – wait time decreased by 69% from 505 days at the end of FY 13/14 to 157 days at the end of FY 17/18.
- Home with CCAC Services – wait time increased by 43% from 125 days at the end of FY 13/14 to 179 days at the end of FY 17/18.
- Long-term Care - wait time increased by 106% from 328 days at the end of FY 13/14 to 676 days at the end of FY 17/18.

#### Wait Time by Sub-Region of Patient Residence

- North West Mississauga residents had the longest wait in the LHIN at 698 days; Halton Hills had the shortest at 0 days.
- Halton Hills is tied for **lowest** in province.
- North West Mississauga 4<sup>th</sup> highest in province.

#### ALC Wait Time (Days) by Sub-Region of Patient Residence

Mississauga Halton LHIN					
Closed & Open Cases - All Discharge Destinations by Sub-Region	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
<i>90<sup>th</sup> Percentile Wait of Closed Cases</i>					
601 EAST MISSISSAUGA	44	51	54	61	51
602 HALTON HILLS	16	33	43	53	68
603 MILTON	26	49	31	40	28
604 OAKVILLE	27	25	31	38	66
605 NORTH WEST MISSISSAUGA	41	42	51	50	55
606 SOUTH WEST MISSISSAUGA	56	53	57	61	69
607 SOUTH ETOBICOKE	38	39	45	61	61
<i>90<sup>th</sup> Percentile Wait of Open Cases</i>					
601 EAST MISSISSAUGA	161	195	267	359	177
602 HALTON HILLS	54	77	173	203	0
603 MILTON	361	70	219	0	260
604 OAKVILLE	47	137	120	344	293
605 NORTH WEST MISSISSAUGA	505	204	336	361	698
606 SOUTH WEST MISSISSAUGA	324	193	360	472	368
607 SOUTH ETOBICOKE	68	83	147	318	212

#### Hospital Processes and Capacity

##### ALC Throughput Ratio

- In the Mississauga Halton LHIN, the throughput ratio increased from 0.99 in FY 13/14 to 1.00 in FY 17/18.

##### Percentage of Patients Designated ALC within 1, 2 & 3 Days of Admission

- The percentage of patients that have been designated as requiring an alternate level of care within one, two and three days of admission to hospital increased over the last five years in the Mississauga Halton LHIN from FY 13/14 to FY 17/18. All 3 measures are ranked 5<sup>th</sup> in the province.

##### ALC Rate (All Inpatient Services)

- The annual ALC rate for all inpatient beds increased from 8.7% in FY 13/14 to 14.5% in FY 17/18.

- In FY 17/18, the Mississauga Halton LHIN was below the provincial rate of 15.4%.

#### Acute I/P Services

- Mississauga Halton LHIN increased over the past 5 fiscal years (11.3% FY 13/14; 18.3% FY 17/18) and is now 2.1% below the provincial value.

#### Post-Acute I/P Services

- Mississauga Halton LHIN increased over the past 5 fiscal years (3.1% FY 13/14; 6.5% FY 17/18). Mississauga Halton LHIN is below the provincial Post-acute ALC rate (13th in ON).
  - CCC Inpatient Services – 13<sup>th</sup> across LHINs for FY 17/18. Rate increased from 2.7% in FY 13/14 to 5.9% in FY 17/18.
  - Mental Health Inpatient Services – 6<sup>th</sup> across LHINs for FY 17/18. Rate increased from 5.4% in FY 13/14 to 9.3% in FY 17/18.
  - Rehab Inpatient Services – 10<sup>th</sup> across LHINs for FY 17/18. Rate increased from 2.4% in FY 13/14 to 5.4% in FY 17/18.

#### LHIN/Facility/Site – Annual ALC Rate

Province/LHIN/Facility/Site			Annual ALC Rate					% Change FY 13/14 to FY 17/18
			FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	
<b>Provincial</b>			<b>13.8%</b>	<b>13.7%</b>	<b>13.9%</b>	<b>14.8%</b>	<b>15.4%</b>	
<b>LHIN</b>	<b>6</b>	<b>Mississauga Halton</b>	8.7%	9.6%	11.3%	14.2%	14.5%	5.8%
<b>Facility</b>	731	CREDIT VALLEY HOSPITAL	10.3%	11.0%	NR	NR	N/A	
<b>Facility</b>	949	TRILLIUM HEALTH CENTRE	8.4%	8.6%	N/A	NR	NR	
<b>Site</b>	4090	TRILLIUM HEALTH CENTRE-MISSISSAUGA	10.1%	10.1%	N/A	NR	NR	
<b>Site</b>	4363	TRILLIUM HEALTH CENTRE-WEST TORONTO	0.3%	0.0%	N/A	NR	NR	
<b>Facility</b>	950	HALTON HEALTHCARE SERVICES CORP	7.5%	9.9%	13.4%	17.3%	16.6%	9.0%
<b>Site</b>	4192	HALTON HEALTHCARE SERVICES CORP-OAKVILLE	6.9%	8.0%	12.0%	16.6%	16.1%	9.2%
<b>Site</b>	4193	HALTON -MILTON	9.4%	10.3%	12.2%	13.5%	14.1%	4.7%
<b>Site</b>	4622	HALTON HEALTHCARE SERVICES CORP-GEORGETOWN	9.3%	20.1%	23.5%	25.5%	22.1%	12.8%
<b>Facility</b>	975	TRILLIUM HEALTH PARTNERS	NR	NR	10.5%	12.9%	13.6%	3.1%
<b>Site</b>	4751	CREDIT VALLEY SITE	NR	NR	11.2%	10.6%	11.7%	0.5%
<b>Site</b>	4756	MISSISSAUGA SITE	NR	NR	12.0%	17.1%	18.2%	6.2%
<b>Site</b>	4759	QUEENSWAY HEALTH SITE	NR	NR	0.0%	0.0%	0.0%	0.0%

\*If all 5 years are not available, then available years used to calculate % change

- In FY 17/18, Halton Healthcare Services Corp. had the highest ALC Rate across the Mississauga Halton LHIN at the facility level, with Halton Healthcare Services Corp. - Georgetown having the highest site level rate.
- Halton Healthcare Services Corp. - Georgetown had the greatest increase in ALC Rate since FY 13/14 (+12.8%).
- No hospitals in the Mississauga Halton LHIN have had a decrease in ALC Rate since FY 13/14.

## Long-Term Care

### Long-Term Care Bed Supply

- 28 LTC homes are licensed and approved to operate in Mississauga Halton LHIN.
- As of February 2018, there were a total of 4,163 Long-Term Care beds in operation in Mississauga Halton LHIN.
  - With the exception of 69 beds designated as Short-stay, Respite or Convalescent care beds, almost all of the LTC beds are designated Long-Stay Beds or Interim beds.

### Long-Term Care Waitlist & Placements

- Of the 1,117 patients placed in Mississauga Halton LHIN Long-Term Care Homes in FY 2017/18, approximately 78% were from the community while only 16% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- Of the 1,214 residents of Mississauga Halton LHIN placed in Ontario Long-Term Care Homes in FY 2017/18, approximately 80% were from the community while only 15% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- The median time to placement in a Mississauga Halton LHIN long-term care home, as of March 2018, was 180 days.
  - Half of community patients waited less than 190 days for a placement in a Mississauga Halton LHIN LTC home while half of hospital patients waited less than 152 days for placement in a Mississauga Halton LHIN LTC Home.
- The median time to placement for a Mississauga Halton LHIN resident to be placed in a long-term care home, as of March 2018, was 188 days.
  - Half of community patients from Mississauga Halton LHIN waited less than 194 days for a placement in an Ontario LTC home while half of hospital patients waited less than 162 days for placement.
- As of March 2018, there were 2,224 patients on the waitlist waiting for placement in a Long-Term Care home in Mississauga Halton LHIN (not including patients awaiting transfer from one LTC home to another).
- As of March 2018, there were 2,216 residents of Mississauga Halton LHIN on the waitlist waiting for placement in an Ontario Long-Term Care home (not including patients awaiting transfer from one LTC home to another).

### Long-Stay Demand

- As of March 2018, there were 4,035 long-stay residents occupying LTC Homes within Mississauga Halton LHIN.
- When adjusted for the size of the older population, Mississauga Halton LHIN has approximately 56 Long-Stay beds per 1,000 people aged 75+.
- The gap between the demand and supply of Long-Term Care Homes in Mississauga Halton LHIN reflects a shortage of approximately 2,165 Long-Stay beds.
  - The largest gap is in the [Oakville](#) sub-region (513 beds) with the smallest gap in [Halton Hills](#) (127 beds).

### Selected Characteristics of Long-Term Care Home Residents

- In Mississauga Halton LHIN, 86% of Residents were over the age of 75 with 60% being over the age of 85.
- In 2016/17, the mean age of residents of LTC Homes in Mississauga Halton LHIN was 85.
- The mean length of stay for residents of LTC Homes in Mississauga Halton LHIN was 1,109 days (about 3 years) with half of residents remaining in LTC homes for less than 736 days.

- Nearly 88% of residents need extensive help with daily activities such as getting out of bed, eating, or toileting; 35% are highly or entirely dependent on staff.
- 85% have some form of cognitive impairment; 34% are severely impaired.
- 38% exhibit some level of aggressive behaviour related to their cognitive impairment or mental health condition with 5% exhibiting very severe aggressive behavior.
- 69% of active LTC Residents in Mississauga Halton LHIN LTC Homes have been identified as having some form of dementia.



### Long-term care home supply, waitlists and placements, and resident characteristics, by LHIN sub-region

	Mississauga Halton		0601		0602		0603		0604		0605		0606		0607	
			East Mississauga		Halton Hills		Milton		Oakville		North West Mississauga		South West Mississauga		South Etobicoke	
Long-term care bed supply in the sub-region (February 2018)	Rate per 1,000 population age 75+		Rate per 1,000 population age 75+		Rate per 1,000 population age 75+		Rate per 1,000 population age 75+		Rate per 1,000 population age 75+		Rate per 1,000 population age 75+		Rate per 1,000 population age 75+		Rate per 1,000 population age 75+	
	#		#		#		#		#		#		#		#	
Long-term care homes	28		5		2		1		5		5		4		6	
Long-stay beds	4,094	56.5	905	41.1	196	55.4	198	65.6	773	59.3	797	74.2	444	40.1	781	86.2
Short-stay, respite & convalescent care beds	69	1.0	27	1.2	-	-	2	0.7	17	1.3	1	0.1	-	-	22	2.4
Total beds in operation	4,163	57.4	932	42.4	196	55.4	200	66.2	790	60.6	798	74.3	444	40.1	803	88.7

\*The denominator for the rate calculation refers to the number of sub-region residents age 75+; however the LTC homes/beds may serve individuals from other sub-regions. Therefore, rates should be interpreted with caution.

	Mississauga Halton		0601		0602		0603		0604		0605		0606		0607	
			East Mississauga		Halton Hills		Milton		Oakville		North West Mississauga		South West Mississauga		South Etobicoke	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>By sub-region of long-term care <u>home</u> (patients awaiting placement in a home within the sub-region)</b>																
Long-stay waitlist without transfer patients*	2,224	30.7	299	13.6	129	36.5	219	72.5	529	40.6	498	46.4	229	20.7	321	35.4
<b>Placements**</b>																
From community	871	78.0%	195	69.4%	43	87.8%	40	83.3%	213	92.6%	143	82.2%	96	67.1%	141	73.4%

From hospital	177	15.8%	61	21.7%	5	10.2%	4	8.3%	14	6.1%	25	14.4%	34	23.8%	34	17.7%
	1,11															
Total	7		281		49		48		230		174		143		192	
<b>Median time to placement (days)</b>																
From community	190		118.0		230.0		214.0		232.0		226.0		137.0		239.0	
From hospital	152		97.0		558.0		334.0		507.0		125.0		183.0		78.5	
Total	180		119.0		230.0		245.5		247.0		223.5		163.0		197.0	
<b>By sub-region of patient (patients who reside within the sub-region and are awaiting placement in any home)</b>																
Long-stay waitlist without transfer patients*	2,21															
	6	30.6	562	25.5	127	35.9	199	65.9	536	41.1	306	28.5	229	20.7	257	28.4
<b>Placements**</b>																
From community	971	80.0%	244	78.2%	54	72.0%	83	85.6%	186	83.8%	157	80.5%	130	82.8%	117	75.0%
From hospital	184	15.2%	55	17.6%	15	20.0%	9	9.3%	26	11.7%	31	15.9%	21	13.4%	27	17.3%
	1,21															
Total	4		312		75		97		222		195		157		156	
<b>Median time to placement (days)</b>																
From community	194		189.0		235.0		129.0		219.0		166.0		182.5		233.0	
From hospital	162		138.0		175.0		94.0		381.5		188.0		292.0		154.0	
Total	188		168.5		223.0		125.0		222.5		167.0		209.0		232.5	

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents

Placements from other locations (correctional facilities, homeless, out-of-province) are not shown but are included in the total placement values.

	Mississauga Halton		0601		0602		0603		0604		0605		0606		0607	
			East Mississauga		Halton Hills		Milton		Oakville		North West Mississauga		South West Mississauga		South Etobicoke	
Long-stay demand (February / March 2018) for LTC homes in the sub-region	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-stay residents	4,035	55.7	894	40.6	194	54.8	187	61.9	757	58.1	793	73.8	437	39.5	773	85.4
Long-stay waitlist without transfer patients	2,224	30.7	299	13.6	129	36.5	219	72.5	529	40.6	498	46.4	229	20.7	321	35.4
Total demand	6,259	86.4	1,193	54.2	323	91.3	406	134.4	1,286	98.6	1,291	120.2	666	60.1	1,094	120.8
Total long-stay supply	4,094	56	905	41.1	196	55.4	198	65.6	773	59.3	797	74.2	444	40.1	781	86.2
Difference between supply and demand	2,165	30	288	13.1	127	35.9	208	68.9	513	39.3	494	46.0	222	20.0	313	34.6

	Mississauga Halton		0601		0602		0603		0604		0605		0606		0607	
			East Mississauga		Halton Hills		Milton		Oakville		North West Mississauga		South West Mississauga		South Etobicoke	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Demography, volume and length of stay (LOS)</b>																
Active LTC Residents*	3,655	50.4	797	36.2	166	46.9	179	59.3	709	54.4	728	67.8	391	35.3	685	75.6
Number of admissions*	1,317	18.2	301	13.7	52	14.7	63	20.9	240	18.4	230	21.4	165	14.9	266	29.4
<b>By age group**</b>																
Residents age <65	191	5.2%	45	5.6%	14	8.4%	13	7.3%	36	5.1%	33	4.5%	27	6.9%	23	3.4%

	Mississauga Halton		0601 East Mississauga		0602 Halton Hills		0603 Milton		0604 Oakville		0605 North West Mississauga		0606 South West Mississauga		0607 South Etobicoke	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Residents age 65-74	306	8.4%	79	9.9%	13	7.8%	19	10.6%	52	7.3%	52	7.1%	41	10.5%	50	7.3%
Residents age 75-84	981	26.8%	228	28.6%	50	30.1%	38	21.2%	178	25.1%	203	27.9%	102	26.1%	182	26.6%
Residents age 85+	2,177	59.6%	445	55.8%	89	53.6%	109	60.9%	443	62.5%	440	60.4%	221	56.5%	430	62.8%
Mean age of residents	85		84		83		84		85		85		84		86	
Mean age of residents at admission	84		84		84		84		85		84		84		85	
<b>Length of stay</b>																
Mean LOS (days)	1,109		1,061		1,146		1,152		1,325		1,287		892		910	
Median LOS (days)	736		764		781		732		1,007		950		583		589	
<b>Residents by level of ADL assistance required**</b>																
None or limited assistance required	447	12.2%	52	6.5%	37	22.3%	35	19.6%	78	11.0%	128	17.6%	53	13.6%	64	9.3%
Extensive assistance required	1,947	53.3%	474	59.5%	78	47.0%	86	48.0%	390	55.0%	372	51.1%	180	46.0%	367	53.6%
Dependent	1,261	34.5%	271	34.0%	51	30.7%	58	32.4%	241	34.0%	228	31.3%	158	40.4%	254	37.1%
<b>Residents by level of aggressive behaviour**</b>																
No signs of aggressive behaviour	2,257	61.8%	491	61.6%	112	67.5%	138	77.1%	468	66.0%	452	62.1%	206	52.7%	390	56.9%
Some signs of aggressive behaviour	774	21.2%	189	23.7%	39	23.5%	28	15.6%	117	16.5%	133	18.3%	108	27.6%	160	23.4%

	Mississauga Halton		0601 East Mississauga		0602 Halton Hills		0603 Milton		0604 Oakville		0605 North West Mississauga		0606 South West Mississauga		0607 South Etobicoke	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Moderate to severe aggressive behaviour	434	11.9%	100	12.5%	12	7.2%	12	6.7%	81	11.4%	85	11.7%	54	13.8%	90	13.1%
Very severe aggressive behaviour	190	5.2%	17	2.1%	<5		<5		43	6.1%	58	8.0%	23	5.9%	45	6.6%
<b>Cognitive impairment categories **</b>																
Relatively intact	549	15.0%	89	11.2%	39	23.5%	23	12.8%	104	14.7%	133	18.3%	76	19.4%	85	12.4%
Mild impairment	1,866	51.1%	390	48.9%	68	41.0%	109	60.9%	390	55.0%	339	46.6%	208	53.2%	362	52.8%
Severe impairment	1,240	33.9%	318	39.9%	59	35.5%	47	26.3%	215	30.3%	256	35.2%	107	27.4%	238	34.7%
<b>RUG categories **</b>																
1 Extensive Services	217	5.9%	58	7.3%	<5		11	6.1%	51	7.2%	59	8.1%	22	5.6%	15	2.2%
2 Special Rehabilitation	138	3.8%	21	2.6%	<5		7	3.9%	31	4.4%	41	5.6%	19	4.9%	18	2.6%
3 Special Care	377	10.3%	65	8.2%	15	9.0%	31	17.3%	109	15.4%	79	10.9%	22	5.6%	56	8.2%
4 Clinically Complex	1,084	29.7%	272	34.1%	25	15.1%	74	41.3%	153	21.6%	223	30.6%	114	29.2%	223	32.6%
5 Impaired Cognition	294	8.0%	56	7.0%	15	9.0%	25	14.0%	93	13.1%	33	4.5%	24	6.1%	48	7.0%
6 Behavioural Problems	28	0.8%	<5		<5		0	0.0%	<5		6	0.8%	12	3.1%	<5	
7 Reduced Physical Functions	1,517	41.5%	323	40.5%	107	64.5%	31	17.3%	268	37.8%	287	39.4%	178	45.5%	323	47.2%
<b>Residents with Dementia**</b>	<b>2,539</b>	<b>69.5%</b>	<b>565</b>	<b>70.9%</b>	<b>113</b>	<b>68.1%</b>	<b>113</b>	<b>63.1%</b>	<b>524</b>	<b>73.9%</b>	<b>489</b>	<b>67.2%</b>	<b>275</b>	<b>70.3%</b>	<b>460</b>	<b>67.2%</b>

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents



## 7. Toronto Central LHIN



## Contents

<b>7. Toronto Central LHIN</b>	<b>1</b>
<b>Highlights</b>	<b>1</b>
Toronto Central LHIN.....	1
Residents of Toronto Central LHIN Sub-Regions.....	4
<b>Population Characteristics</b>	<b>9</b>
Population Estimates.....	9
2016 Census Profile.....	10
Births and Mortality.....	17
General Health, Risk Factors, and Prevention.....	23
Chronic Conditions.....	25
<b>Human Resources</b>	<b>37</b>
<b>Primary Care</b>	<b>40</b>
Primary Care Enrolment.....	40
Selected Measures from the Health Care Experience Survey.....	40
<b>Community Care</b>	<b>42</b>
<b>Mental Health</b>	<b>43</b>
Wait Time for Community Services.....	43
Mental Health and Substance Abuse Emergency Department Visits.....	43
Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility.....	44
<b>Surgery &amp; Diagnostic Imaging</b>	<b>46</b>
Day Surgery and Cardiac Catheterization Utilization.....	46
Surgical & Diagnostic Imaging Wait Times.....	47
<b>Oncology and Dialysis</b>	<b>56</b>
<b>Home Care</b>	<b>59</b>
<b>Palliative Care</b>	<b>62</b>
<b>Emergency Department</b>	<b>65</b>
Emergency Department Utilization.....	65
Emergency Department Performance.....	70
<b>Acute Care</b>	<b>72</b>
Acute Care Utilization by Residents of the Toronto Central LHIN.....	72
Acute Care Utilization for Toronto Central LHIN Facilities.....	73
Acute Care Inflow/Outflow.....	74
<b>Post-Acute Care</b>	<b>76</b>
Inpatient Rehabilitation Utilization.....	76
Complex Continuing Care Utilization.....	79
<b>Alternate Level of Care</b>	<b>80</b>
Closed ALC Cases.....	81
Open ALC Cases.....	81
Hospital Processes and Capacity.....	82
<b>Long-Term Care</b>	<b>85</b>



## Highlights

Comprehensive information about population demographics, health status, health outcomes, chronic conditions, human resources, primary care, health service utilization, and long-term care in the Toronto Central LHIN can be found under the content headings of in the remainder of this document, beginning with the socio-demographic profile. This Highlights introduction is intended to provide a guide to areas in which either the Toronto Central LHIN or one of its sub-regions is significantly different from the province as a whole. Sub-region comparisons within this section are always to the other 75<sup>1</sup> sub-regions across the province, and LHIN comparisons are always to the other 13 LHINs.

### Toronto Central LHIN

#### Population Characteristics

- The Toronto Central LHIN is estimated to have had the 2<sup>nd</sup> highest population growth between 2011 and 2016, and is projected to have the **highest** growth by 2026.
- The Toronto Central LHIN had the **lowest** dependency ratio of all 14 LHINs.
- The Toronto Central LHIN had the **highest** population density of all 14 LHINs.
- The Toronto Central LHIN had the **highest** percentage of residents aged 65+ living alone and the second highest number of these residents.
- The Toronto Central LHIN had the **lowest** percentage of residents with only high school completion.
- The Toronto Central LHIN had the **lowest** percentage of residents with post-secondary education below bachelor's degree.
- The Toronto Central LHIN had the **highest** percentage of residents with bachelor's degree completion and beyond.
- The Toronto Central LHIN had the **highest** percentage of residents participating in the labour force.
- The overall fertility rate was the 2<sup>nd</sup> lowest in the province. The teen fertility rate was the 3<sup>rd</sup> lowest.
- In FY2016, the Toronto Central LHIN had the 2<sup>nd</sup> lowest proportion of women under 20 who gave birth, and the **highest** of women 35 or older.
- The overall mean age of mothers giving birth in this LHIN was the **highest** age in the province.
- The multiple live birth rate in 2016 was the 2<sup>nd</sup> highest in the province.
- The epidural rate for vaginal deliveries and for all deliveries was the **highest** rate in the province.
- Among vaginal deliveries, the overall assisted delivery rate for Toronto Central women and the vacuum extraction rate were the **highest** in the province.
- Toronto Central had the **lowest** proportion of hospital births attended by a midwife.
- Toronto Central had the **highest** number of CSS Community Visits-Face to Face Visits per 1,000 population 75+.
- Toronto Central LHIN residents had the **lowest** rate of day surgery and ambulatory cardiac catheterization visits.
- Toronto Central emergency departments had the **largest** proportion of patients who arrived by ambulance (tied with **Central West**).
- Toronto Central hospitals had the **highest** rate of admission to an inpatient bed from the emergency department.
- **Significantly higher** percentage of people who died in hospital than the provincial value.
- Mean HIG weight for Toronto Central LHIN hospitals in 2016/17 was the **highest** among all LHINs.

---

<sup>1</sup> Or however many sub-regions have reported data across the province.

- Toronto Central hospitals accounted for the **largest** proportion of both acute separations and acute days in 2016/17.
- Toronto Central hospitals had the **longest** acute length of stay.
- The Toronto Central LHIN had the **highest** proportion of acute inflow (residents of other LHINs admitted to acute inpatient beds in the Toronto Central LHIN).
- The Toronto Central LHIN had the **highest** proportion of rehabilitation inflow (residents of other LHINs admitted to inpatient rehabilitation beds in the Toronto Central LHIN).
- Toronto Central LHIN was one of the two LHINs with the **highest** numbers of active cases, admissions and discharges in CCC beds in 2016/17.
- Toronto Central hospitals had the **longest** length of stay in CCC units in 2016/17.
- Toronto Central LHIN residents had the longest length of stay in CCC beds.
- Toronto Central LHIN hospitals had the **highest** number of active cases, admissions, discharges and total days in adult designated mental health beds.

### Strengths

- The rate of exclusive breastfeeding at discharge among term live births in this LHIN was the 2<sup>nd</sup> highest in the province.
- In Toronto Central, the rate of women who self-identified as non-smokers was the 2<sup>nd</sup> highest proportion in the province at both the first prenatal visit and at the time of labour
- Toronto Central mothers had the 2<sup>nd</sup> lowest reported rate of drug use during pregnancy.
- The Toronto Central LHIN had the highest proportion of residents with self-reported very good or excellent health, **significantly higher** than the Ontario rate.
- The Toronto Central LHIN had the **lowest** percentage of adult residents reporting being either overweight or obese, which was **significantly lower** than the Ontario rate. Four of five sub-regions in Toronto Central had **significantly lower** rates of overweight or obesity.
- Toronto Central residents reported the **lowest** rate of physical inactivity, significantly better than the Ontario rate
- The prevalence rate for residents with one or more chronic conditions was **significantly lower** than Ontario and was the **lowest** among the LHINs.
- The prevalence rate for residents with two or more chronic conditions was **significantly lower** than Ontario and was the **lowest** among the LHINs.
- The Toronto Central LHIN had the **lowest** prevalence rates in the province of asthma, COPD, diabetes, and hypertension.
- Toronto Central LHIN had the **highest** life expectancy at age 65 for females.
- **Highest** percentage of residents who report satisfaction with health care in their community.
- 2<sup>nd</sup> lowest percentage of residents who went to the ED for something that could have been treated by a primary care provider.

### Challenges/Opportunities

- The Toronto Central LHIN had the **highest** percentage of residents living below the low-income measure, as well as the highest percentage of children under 18 living below the low-income measure.
- The Toronto Central LHIN had the **highest** percentage of seniors living in poverty.
- In FY 2016/17, Toronto Central hospitals had the **highest** proportion of Caesarean deliveries in the province. The rate of primary Caesarean section rate (the mother's first Caesarean, regardless if she had given birth vaginally before) was also the **highest** rate in the province.
- In 2016, the pre-term birth rate was the 3<sup>rd</sup> highest rate in the province.
- The low birth weight rate in Toronto Central was the 2<sup>nd</sup> highest in the province.

- The Toronto Central LHIN had the 2<sup>nd</sup> lowest rate of attachment to a regular medical doctor, **significantly lower** than Ontario.
- In 2017/18, 90<sup>th</sup> percentile wait time for pediatric MRI was **longest** in the Toronto Central LHIN.
- Toronto Central LHIN hospitals had the **highest** proportion of emergency department visits for mental health or substance abuse conditions made by patients who were homeless.
- Hospitals in the Toronto Central LHIN had the **longest** wait for consultants to arrive in the emergency department after being requested.
- Emergency departments in the Toronto Central LHIN had the **longest** time to patient disposition.
- Mean acute length of stay in the Toronto Central LHIN was the **highest** of all the LHINs.
- Patients awaiting discharge from and ALC designation in Toronto Central LHIN hospitals had had the **longest** wait to date across the LHINs at the end of FY 17/18.

## WEST TORONTO SUB-REGION HIGHLIGHTS

### Population Characteristics

- 3<sup>rd</sup> lowest dependency ratio.
- 3<sup>rd</sup> highest percentage of people age 65+ living alone.
- 5<sup>th</sup> highest population density.
- 8<sup>th</sup> highest percentage of residents with bachelor's degree completion and beyond.
- 3<sup>rd</sup> highest overall mean age of mothers giving birth in the province
- 6<sup>th</sup> highest multiple live birth rates in the province.
- Tied for the 4<sup>th</sup> highest mean age of mothers at the birth of their first infant in the province with [Mid-West Toronto](#).
- Among the highest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- Among the longest acute length of stay in acute hospital beds in 2016/17.
- 8<sup>th</sup> highest CCC active case rate.

### Strengths

- **Significantly lower** prevalence rate for asthma and for diabetes than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*

### Challenges/Opportunities

- 7<sup>th</sup> highest percentage of seniors (65+) living in low-income households.
- 8<sup>th</sup> highest percentage of residents spending 30% or more of household income on rent or payments.
- 8<sup>th</sup> highest low birth weight rate in the province.
- 7<sup>th</sup> highest pre-term birth rate in the province.
- The proportion of population having a regular medical doctor was **significantly lower** in [West Toronto](#) than Ontario.
- 2<sup>nd</sup> lowest percentage of residents who report attachment to a primary care provider.
- Among the 8 sub-regions with the highest mean cost per high cost healthcare user.
- Among the highest 8 Ontario sub-regions in both mean acute and total lengths of stay – with values higher than Ontario.
- At the end of 2017/18, residents of [West Toronto](#) had had the 6<sup>th</sup> longest wait to date for discharge from an ALC designation in hospital (open cases).

## MID-WEST TORONTO SUB-REGION HIGHLIGHTS

### Population Characteristics

- According to the census, Mid-West Toronto had the 6<sup>th</sup> highest increase in population between 2011 and 2016.
- 2<sup>nd</sup> lowest dependency ratio.
- **Highest** population density of all 76 sub-regions.
- 5<sup>th</sup> highest percentage of residents who report no knowledge of English or French.
- 3<sup>rd</sup> lowest percentage of residents with only high school completion.
- 2<sup>nd</sup> lowest percentage of residents with post-secondary education below bachelor's degree.
- 3<sup>rd</sup> highest percentage of residents with bachelor's degree completion and beyond.
- 4<sup>th</sup> highest percentage of residents participating in the labour force.
- 2<sup>nd</sup> highest mean age of mothers at the birth of their first infant in the province.
- Tied with Mid-East Toronto for the 4<sup>th</sup> highest overall mean age of mothers giving birth in the province.
- 3<sup>rd</sup> lowest large for gestational age rate in the province.
- Among the eight sub-regions with the highest service hour rates for personal support.

### Strengths

- 2<sup>nd</sup> lowest percentage of residents spending 30% or more of household income on rent or payments.
- **Significantly lower** prevalence of hypertension than Ontario.
- 6<sup>th</sup> highest percentage of residents who report satisfaction with health care in their community.
- Among the 8 sub-regions with the lowest hospitalization for ischemic heart disease.

### Challenges/Opportunities

- 6<sup>th</sup> highest percentage of seniors (65+) living in low-income households.
- The proportion having a regular medical doctor was **significantly lower** in Mid-West Toronto than Ontario.
- 6<sup>th</sup> lowest percentage of residents who report attachment to a primary care provider.
- Among the 8 sub-regions with the highest mean cost per complex patient.
- Among the 8 sub-regions with the highest mean cost per high cost healthcare user.
- At the end of 2017/18, residents of Mid-West Toronto had had the 2<sup>nd</sup> longest wait to date for discharge from an ALC designation in hospital (open cases).

## NORTH TORONTO SUB-REGION HIGHLIGHTS

### Population Characteristics

- 4<sup>th</sup> highest population density.
- 2<sup>nd</sup> highest percentage of people age 65+ living alone.
- **Lowest** percentage of residents with less than high school, with only high school completion, and with post-secondary education below bachelor's degree .
- **Highest** percentage of residents with bachelor's degree completion and beyond.
- 4<sup>th</sup> highest multiple live birth rates in the province.
- **Highest** mean age of mothers at the birth of their first infant in the province.
- **Highest** overall mean age of mothers giving birth in the province
- **North Toronto** tied with **East Toronto** tied for the 8<sup>th</sup> lowest fertility rate among teenagers in the province.

### Strengths

- **Lowest** stillbirth rate in the province (4.0).
- 8<sup>th</sup> lowest “large for gestational age” rate in the province.
- Very good or excellent health was significantly more prevalent in **North Toronto** compared to Ontario.
- **Significantly lower** prevalence rate for diabetes than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- **Significantly lower** prevalence rate for hypertension than Ontario.
- Among the 8 sub-regions with the lowest hospitalization rates for asthma, chronic obstructive pulmonary disease, diabetes, lower respiratory disease, and respiratory disease.
- 7<sup>th</sup> highest percentage of residents who were able to see their provider the same day or next day when they were sick.
- 5<sup>th</sup> lowest percentage of residents who went to the ED for something that could have been treated by a primary care provider.
- **Lowest** hospitalization rates for cardiovascular disease, cerebrovascular disease, ischemic heart disease, and stroke.
- 8<sup>th</sup> lowest all-cause potential years of life lost rate in Ontario.

### Challenges/Opportunities

- 6<sup>th</sup> highest percentage of residents who went to a walk in clinic for something that could have been treated by provider if they were available.
- At the end of 2017/18, residents of **North Toronto** had been waiting the 7<sup>th</sup> longest for discharge from an ALC designation in hospital (open cases).

## MID-EAST TORONTO SUB-REGION HIGHLIGHTS

### Population Characteristics

- According to the census, Mid-East Toronto had the 8<sup>th</sup> highest increase in population between 2011 and 2016.
- **Lowest** dependency ratio of all Ontario sub-regions.
- **Highest** percentage of people age 65+ living alone of all Ontario sub-regions.
- 2<sup>nd</sup> highest population density.
- 8<sup>th</sup> lowest percentage of residents with less than high school.
- 2<sup>nd</sup> lowest percentage of residents with only high school completion.
- 3<sup>rd</sup> lowest percentage of residents with post-secondary education below bachelor's degree.
- 2<sup>nd</sup> highest percentage of residents with bachelor's degree completion and beyond.
- 6<sup>th</sup> highest percentage of residents participating in the labour force.
- 3<sup>rd</sup> highest mean age of mothers at the birth of their first infant in the province.
- Mid-East Toronto tied with Mid-West Toronto for the 4<sup>th</sup> highest overall mean age of mothers giving birth in the province.

### Strengths

- Very good or excellent health was significantly more prevalent in Mid-East Toronto compared to Ontario.
- **Significantly lower** prevalence rate for diabetes and for hypertension than Ontario. *Note: The reported rate had high sampling variability, these rates must be used with caution.*
- **Highest** percentage of residents who report satisfaction with health care in their community.
- 7<sup>th</sup> lowest percentage of residents who found it difficult to access care after-hours without going to an emergency department.
- Among the 8 sub-regions with the lowest hospitalization rates for ischemic heart disease.

### Challenges/Opportunities

- **Highest** percentage population living below the low-income measure of all 76 sub-regions.
- 4<sup>th</sup> highest percentage of children under 18 living in low-income households.
- **Highest** percentage of seniors (65+) living in low-income households of all Ontario sub-regions.
- 3<sup>rd</sup> highest percentage of residents spending 30% or more of household income on rent or payments.
- The proportion having a regular medical doctor was **significantly lower** in Mid-East Toronto than Ontario.
- Mid-East Toronto residents had the 8<sup>th</sup> highest ED visit rate for MH/SA conditions.
- Among the 8 sub-regions with the highest mean cost per complex patient.
- Among the 8 sub-regions with the highest mean cost per high cost healthcare user.

## EAST TORONTO SUB-REGION HIGHLIGHTS

### Population Characteristics

- 6<sup>th</sup> lowest dependency ratio.
- 5<sup>th</sup> highest percentage of people age 65+ living alone.
- 3<sup>rd</sup> highest population density.
- 8<sup>th</sup> highest percentage of residents who were recent immigrants. The country of origin for the largest proportion of recent immigrants was Bangladesh.
- 8<sup>th</sup> highest overall mean age of mothers giving birth in the province
- 6<sup>th</sup> highest mean age of mothers at the birth of their first infant in the province.
- **East Toronto** tied with **North Toronto** for the 8<sup>th</sup> lowest fertility rate among teenagers in the province.

### Strengths

- 7<sup>th</sup> highest percentage of residents who report satisfaction with health care in their community.
- 5<sup>th</sup> highest percentage of residents who were able to see their provider the same day or next day when they were sick.
- 4<sup>th</sup> lowest percentage of residents who went to the ED for something that could have been treated by a primary care provider.
- Among the 8 sub-regions with the lowest hospitalization rates for cerebrovascular disease and for stroke.

### Challenges/Opportunities

- 7<sup>th</sup> highest percentage of residents spending 30% or more of household income on rent or payments.
- 8<sup>th</sup> highest percentage of dwellings in need of major repairs.
- 6<sup>th</sup> highest percentage of households with an insufficient number of bedrooms to accommodate household size.
- 3<sup>rd</sup> highest percentage population living below the low-income measure.
- 7<sup>th</sup> highest percentage of children under 18 living in low-income households.
- 2<sup>nd</sup> highest percentage of seniors (65+) living in low-income households.



## Population Characteristics

### Population Estimates<sup>2</sup>

- As of 2016, the population of the Toronto Central LHIN is estimated to be 1,284, 522, an 8.0% increase over 2011.
  - The populations 65 and over and 75 and over represent 15% and 7% of the total population respectively.
- The population of the Toronto Central LHIN is projected to increase by 11.8% by 2021 and by 20.3% by 2026.

### Population Estimates from 2016 Census and Ministry of Finance

	Ontario	Toronto Central	Comments†
2011 Census, total population	12,851,821	1,149,993	
2016 Census, total population	13,448,494	1,232,258	
Population growth between 2011 and 2016 (based on Census)	4.6%	7.2%	
Estimated population, 2011	13,263,544	1,189,379	
<b>Estimated population, 2016</b>	<b>13,982,984</b>	<b>1,284,522</b>	
% population age 65+	16.38%	15.26%	
% population age 75+	7.17%	7.32%	
<b>% population change estimated 2011-2016</b>	<b>5.4%</b>	<b>8.0%</b>	<i>2<sup>nd</sup> largest</i>
Projected population, 2021	14,980,422	1,436,239	
Projected population, 2026	15,822,463	1,545,534	
% changes (based on changes from the 2016 estimates)			
% population change forecasted 2016-2021	7.1%	11.8%	<i>2<sup>nd</sup> largest</i>
% population change forecasted 2016-2026	13.2%	20.3%	<b>Highest</b>

Sub-Region Name	Total population	Age 65plus	% 65+	Age 75plus	% 75+
<b>West Toronto</b>	259,892	41,533	15.98%	20,335	7.82%
<b>Mid-West Toronto</b>	339,409	51,073	15.05%	24,701	7.28%
<b>North Toronto</b>	224,289	38,095	16.98%	19,518	8.70%
<b>Mid-East Toronto</b>	158,767	21,632	13.63%	9,199	5.79%
<b>East Toronto</b>	302,165	43,343	14.34%	20,260	6.71%

<sup>2</sup> Please see note in Ontario chapter on Census versus Ministry of Finance estimates.

### Census Demographics

- 13.5% of the population was in the age group 0-14 and 72.5% was in the age group 15-64.
- The dependency ratio in Toronto Central at 46.9 was lower than the province (64.5).
- 100% of Toronto Central's population lived in a large urban community.
- Toronto Central's land mass measures 192 square kilometres making it the **smallest** in the province.
- Toronto Central's population density was 6412.6 persons per square kilometre making it the **most** densely populated LHIN in the province.

### Households

- In 2016, 161,590 households contained one or more family members aged 65 years and over. 33.8% of those individuals were living alone.
  - By sub-region, **Mid-East Toronto** had the highest rate of seniors living alone (43.2%) and **Mid-West Toronto** had the lowest (28.8%).
  - By sub-region and household size, **Mid-East Toronto** had the highest rate of one person households (50.4%) and **East Toronto** had the lowest (31.8%)
  - By sub-region and household size, **East Toronto** had the highest rate of 5 or more person households (8.3%) and **Mid-East Toronto** had the lowest (2.9%).
- In 2016, 180,280 families with children were living within the boundaries of the Toronto Central LHIN. 31.0% of those families were lone parent.
  - By sub-region, **Mid-East Toronto** had the highest rate of lone-parent families (36.2%) and **North Toronto** had the lowest (24.5%).
- The total number of owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio was 564,815. 36.9% of those households spent 30% or more of their income on rent or payments.
  - By sub-region, **Mid-West Toronto** had the highest rate (40.7%) and **North Toronto** had the lowest (32.6%).
- The total number of private households was 568,125. 46.5% of those were owner occupied and 53.5% were rented.
  - By sub-region and owner occupation rate, **East Toronto** had the highest rate (51.0%) with **Mid-East Toronto** having the lowest (37.2%).
- 7.2% of the private households in the Toronto Central were in need of major repair.
  - By sub-region and housing in need of repair rate, **East Toronto** had the highest rate (9.6%) and **Mid-West Toronto** had the lowest (5.9%).
- 9.5% of the private households in the Toronto Central LHIN had an insufficient number of bedrooms to accommodate the household makeup.
  - By sub-region and housing suitability, **East Toronto** had the highest rate of unsuitable housing (13.7%) and **North Toronto** having the lowest (7.8%).

### Language

- In 2016, 63.4% of the population reported English and 2.4% reported French as their mother tongue in Toronto Central LHIN.
  - By sub-region, **North Toronto** had the highest proportion (71.5%) and **Mid-West Toronto** had the lowest proportion of residents who identified English as their mother tongue (59.8%).

- By sub-region, **Mid-East Toronto** had the highest proportion (3.3%) rate of residents who identified French as their mother tongue. **North Toronto** sub-region and **East Toronto** sub-region both had the lowest proportion (2.2%).
- In 2016, 12.9% of Toronto Central LHIN residents were Francophone under the 2009 new Inclusive Definition of Francophone.
  - By sub-region, **Mid-East Toronto** had the highest proportion of Francophone residents (3.8%) and **East Toronto** had the lowest (2.6%).
- 3.5% of the LHIN's population reported no knowledge of either official language.
  - By sub-region, **Mid-West Toronto** reported the highest proportion of residents with no knowledge of English or French (5.4%) and **North Toronto** had the lowest (1.2%).
- 74.8% of the LHIN's population reported English as the most common language spoken at home, followed by English and a non-official language (6.1%), Portuguese (2.0%), Mandarin (1.7%) and Cantonese (1.6%).

### Income

- In the Toronto Central LHIN, 19.0% of the population lived on low income, based on the after-tax low income measure (LIM-AT). That was the highest proportion among the 14 LHINs.
  - The proportion of residents living below the low income measure varied by sub-region, from 13.0% in the **North Toronto** sub-region to 24.0% in the **Mid-Toronto** sub-region.
  - The proportion of households in the lowest income quintile ranged across sub-regions in the Toronto Central LHIN, from 17.2% in the **North Toronto** sub-region to 30.1% in the **Mid-East Toronto** sub-region.
- In the Toronto Central LHIN, 20.9% of children under the age of 6 lived in low income households.
  - By sub-region, children living in low income households ranged from 11.4% in the **North Toronto** sub-region to 28.3% in the **East Toronto** sub-region.
- As a whole, Toronto Central LHIN had the **highest** proportion in the highest income quintile (25.1%) among the 14 LHINs.
  - The proportion of households in the highest income quintile varied across sub-regions in the Toronto Central LHIN, from 23.5% in the **East Toronto** sub-region to 44.6% in the **North Toronto** sub-region.

### Immigration

- In 2016, immigrants accounted for 36.4% of the Toronto Central LHIN population. From 1980 to 2016, 51.1% of immigrants were admitted as economic immigrants, 30.7% were sponsored by family and 16.8% were admitted as refugees. 5.5% of Toronto Central LHIN residents were **recent immigrants**, having arrived in Canada between 2011 and 2016. Of the recent immigrants, the highest proportion came from the Philippines (14.0%), followed by India (9.5%).
  - Among the five Toronto Central LHIN sub-regions, the percentage of immigrants ranged from 31.3% in **North Toronto** to 38.8% in **East Toronto**.
  - The percentage of recent immigrants ranged from 4.4% in **West Toronto** to 6.7% in **East Toronto**.
- In 2016, 41.1% of the Toronto Central LHIN population were **first generation Canadians** (children of immigrants).
  - Among the five Toronto Central LHIN sub-regions, the percentage of first generation Canadians ranged from 35.5% in **North Toronto** to 44.1% in **Mid-West Toronto**.

### Visible Minorities

- In 2016, 35.7% of the Toronto Central LHIN population was a visible minority.

- Among the five Toronto Central LHIN sub-regions, the percentage of visible minorities ranged from 26.1% in [North Toronto](#) to 43.0% in [East Toronto](#).

#### Indigenous (Aboriginal) Identity

- 1.1% of the Toronto Central LHIN's residents identified as Aboriginal, with 0.7% identifying as First Nations and 0.4% as Métis.
  - Among the five Toronto Central LHIN sub-regions, the percentage of residents reporting Aboriginal identity ranged from 0.6% in [North Toronto](#) to 1.6% in [East Toronto](#).

#### Education

- In 2016, 53.2% of residents of the Toronto Central LHIN of working age had completed post-secondary education, the **highest** in the province.
  - Across Toronto Central sub-regions, the percentage of the population with less than high school ranged from 3.0% in [North Toronto](#) to 9.7% in [East Toronto](#).
  - The percentage of the population with high school completion ranged from 12.8% in [North Toronto](#) to 20.0% in [East Toronto](#).
  - The percentage of the population with post-secondary education below bachelor's degree ranged from 19.5% in [North Toronto](#) to 26.0% in [West Toronto](#).
  - The percentage of the population with bachelor's degree completion and beyond ranged from 45.2% in [East Toronto](#) to 64.8% in [North Toronto](#).

#### Labour Force Participation

- In 2016, Toronto Central LHIN residents aged 15+ had the **highest** workforce participation rate (69%) compared to the other LHINs and an unemployment rate of 7.2%.
- Of those employed in 2016, 57% (the 2<sup>nd</sup> highest of all of the LHINs) of Toronto Central LHIN residents had a commute time from their residence to their place of work of 30 minutes or more, while 25.7% had a commute time of 45 minutes or more.

## 2016 Census Profile

	Ontario	Toronto Central	Comments†
<b>Census Population 2016</b>			
Dependency ratio (number of "dependents" for every 100 "workers")	64.5	46.9	Lowest
<b>Urban-Rural Gradient</b>			
% large urban	68.1%	100.0%	Highest
% medium/small population centre	14.7%	0.0%	Lowest
% rural or small communities adjacent to urban areas	8.4%	0.0%	Lowest
% rural and small town	8.8%	0.0%	Lowest (tied)
Land Area (sq km)	908,699	192	Lowest
Population Density (persons per square kilometre)	14.8	6412.6	Highest
<b>Population by Household and Families</b>			
% of people age 65+ living alone	23.5%	33.8%	Highest
% of dwellings in need of major repairs	6.1%	7.2%	
% of households with an insufficient # of bedrooms	6.0%	9.5%	2 <sup>nd</sup> highest
<b>Language</b>			
% who report English as their mother tongue	69.5%	63.4%	
% who report French as their mother tongue	4.3%	2.4%	
% with no knowledge of English or French	2.5%	3.5%	
% Francophone (IDF)	4.7%	2.9%	
<b>Population (in Private Households) Living in Low Income</b>			
% Population living below low-income measure (LIM-AT)	14.4%	19.0%	Highest
% Children living in low income households/LIM (age<6)	19.8%	20.9%	
% Children living in low income households/LIM (age<18)	18.4%	21.9%	Highest
% Seniors living in low income households/LIM (age 65+)	12.0%	18.7%	Highest
<b>Immigration</b>			
% of population who are immigrants	29.1%	36.4%	
% of population who arrived within 5 years	3.6%	5.5%	
% first generation Canadian (children of immigrants)	31.1%	41.1%	
<b>Visible Minorities</b>			
% of population who are visible minorities	29.3%	35.7%	
<b>Indigenous Identity</b>			
% of population of Aboriginal identity	2.8%	1.1%	
% population First Nations identity	1.8%	0.7%	
% population Metis identity	0.9%	0.4%	
% population Inuk identity	0.0%	0.0%	
% Multiple Aboriginal responses	0.0%	0.0%	
% Aboriginal responses not included elsewhere	0.1%	0.0%	
<b>Educational Attainment</b>			
% Population age 25-64 with less than high school	10.4%	7.8%	2 <sup>nd</sup> lowest
% Population age 25-64 with high school completion	24.5%	16.7%	Lowest
% Population age 25-64 with post-secondary education below bachelor's degree	33.2%	22.3%	Lowest
% Population age 25-64 with bachelor's degree completion and beyond	31.9%	53.2%	Highest
<b>Labour Force Activity</b>			
% In the labour force (Participation rate)	64.7%	69.4%	Highest
% Unemployed	7.4%	7.2%	
% 60 minutes and over commuting duration	12.4%	11.5%	

†Highest/lowest ranking in the province, compared to other LHINs.

## Sub-Region Profiles, 2016 Census

Sub-Region	West Toronto	Mid- West Toronto	North Toronto	Mid-East Toronto	East Toronto
<b>Census Population 2016</b>					
Dependency ratio (number of "dependents" for every 100 "workers")	51.1	35.2	61.2	34.8	58.3
<b>Urban-Rural Gradient</b>					
% large urban	100.0%	100.0%	100.0%	100.0%	100.0%
% medium/small population centre	0.0%	0.0%	0.0%	0.0%	0.0%
% rural or small communities adjacent to urban areas	0.0%	0.0%	0.0%	0.0%	0.0%
% rural and small town	0.0%	0.0%	0.0%	0.0%	0.0%
Land Area (sq km)	50	38	39	22	43
Population Density (persons per square kilometre)	4,915.1	9,065.1	5,244.4	7,291.8	6,394.9
<b>Population by Household and Families</b>					
% of people age 65+ living alone	33.9%	28.8%	35.9%	43.2%	32.7%
% Of dwellings in need of major repairs	7.8%	5.9%	6.3%	6.9%	9.6%
% of households with an insufficient # of bedrooms	9.3%	8.0%	7.8%	9.2%	13.7%
<b>Language</b>					
% who report English as their mother tongue	63.2%	59.8%	71.5%	63.8%	62.0%
% who report French as their mother tongue	2.3%	2.4%	2.2%	3.3%	2.2%
% with no knowledge of English or French	2.8%	5.4%	1.2%	2.6%	3.9%
% Francophone	2.8%	2.9%	2.7%	3.8%	2.6%
<b>Population (in Private Households) Living in Low Income</b>					
% Population living below low-income measure (LIM-AT)	17.2%	18.8%	13.0%	24.0%	22.7%
% Children living in low income households/LIM (age<6)	19.0%	17.9%	11.4%	26.2%	28.3%
% Children living in low income households/LIM (age<18)	19.2%	20.2%	12.0%	30.4%	29.3%
% seniors living in low income households/LIM (age 65+)	17.9%	18.4%	13.8%	23.0%	21.6%
<b>Population by Income Quintiles</b>					
% Economic families in Income quintile 1 - lowest income	22.9%	26.2%	17.2%	30.1%	28.9%
% Economic families in Income quintile 2	16.1%	16.1%	12.2%	13.5%	17.6%
% Economic families in Income quintile 3	15.5%	15.4%	12.0%	12.5%	14.6%
% Economic families in Income quintile 4	17.2%	17.0%	14.0%	14.1%	15.4%
% Economic families in Income quintile 5 - highest income	28.4%	25.2%	44.6%	29.7%	23.5%

Sub-Region	West Toronto	Mid- West Toronto	North Toronto	Mid-East Toronto	East Toronto
<b>Immigration</b>					
% of population who are immigrants	36.7%	37.4%	31.3%	36.6%	38.8%
% of population who arrived within 5 years	4.4%	4.9%	5.7%	6.0%	6.7%
% first generation Canadian (children of immigrants)	39.8%	44.1%	35.5%	42.6%	41.8%
<b>Visible Minorities</b>					
% of population who are visible minorities	30.1%	36.7%	26.1%	42.3%	43.0%
<b>Indigenous Identity</b>					
% of population of Aboriginal identity	1.2%	1.0%	0.6%	1.4%	1.6%
% population First Nations identity	0.7%	0.6%	0.3%	0.8%	1.0%
% population Metis identity	0.4%	0.3%	0.2%	0.5%	0.5%
% population Inuk identity	0.0%	0.0%	0.0%	0.0%	0.0%
% Multiple Aboriginal responses	0.0%	0.0%	0.0%	0.1%	0.1%
% Aboriginal responses not included elsewhere	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Educational attainment</b>					
% Population age 25-64 with less than high school	8.8%	9.2%	3.0%	5.9%	9.7%
% Population age 25-64 with high school completion	18.4%	16.0%	12.8%	15.1%	20.0%
% Population age 25-64 with post-secondary education below bachelor's degree	26.0%	20.1%	19.5%	20.6%	25.1%
% Population age 25-64 with bachelor's degree completion and beyond	46.7%	54.9%	64.8%	58.5%	45.2%
<b>Labour Force Activity</b>					
% In the labour force (Participation rate)	68.6%	72.3%	69.0%	71.1%	65.4%
% Unemployed	7.1%	6.6%	6.9%	7.5%	8.4%
% 60 minutes and over commuting duration	14.5%	10.3%	8.6%	9.0%	14.1%

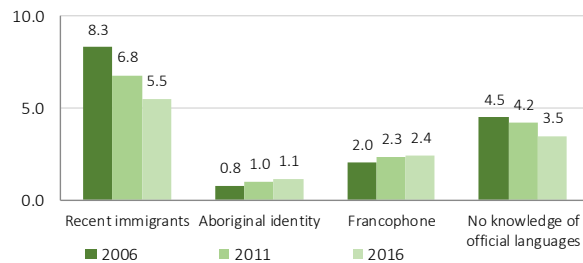
## Toronto Central

### 2016 Census Profile Summary

#### Number of private dwellings

2006	515,866
2011	549,098
2016	611,053

#### Immigration, identity and language (% of population)

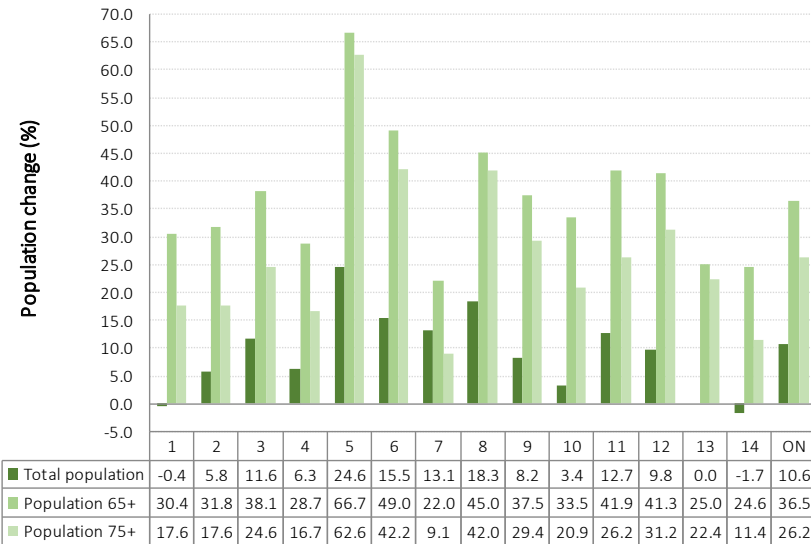


#### Population change (2006-2016)

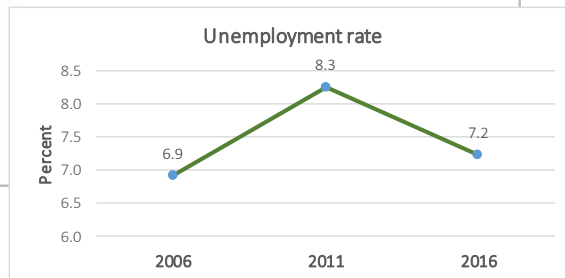
The growth of the senior (65+) population across LHINs ranged from 67% in Central West to 22% in Toronto Central.

The growth of the population age 75+ in Toronto Central between 2006 and 2016 was 9.1%, compared to 26.2% for the province as a whole. Total LHIN population growth was 13.1% for the same period.

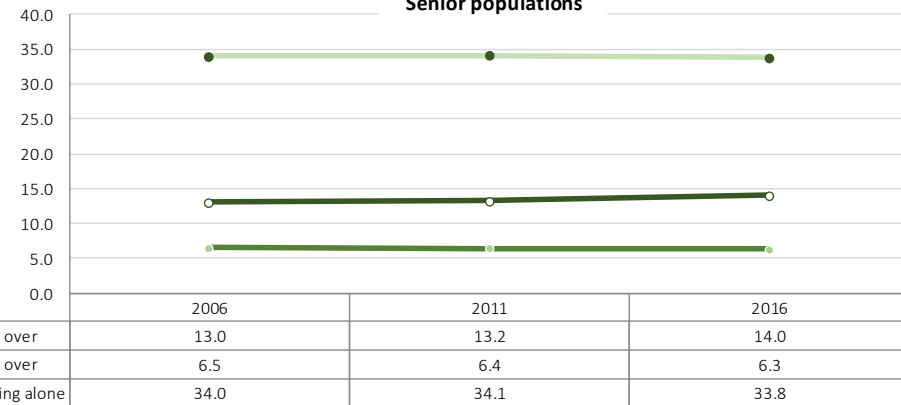
#### Population change, 2006 to 2016, by LHIN



#### Change in unemployment rate, 2006 to 2016 = 4.5%



Percent population





## Births and Mortality

### Births and Maternal Age

- In FY 2016/17, there were 13,621 pregnancies and 13,849 births in Toronto Central women. 95% of births took place in a hospital; the remaining 5% were in the home, birth centre or other (including nursing stations, births outside of Ontario and other Ontario locations).
- In 2016, the crude birth rate (per 1,000 population) in Toronto Central was 10.0.
- The fertility rate per 1,000 Toronto Central females of reproductive age (15 to 49) was 37.7, the 2<sup>nd</sup> lowest rate in the province.
- For teenagers (15 to 19), the fertility rate per 1,000 Toronto Central females was 3.6.
  - By sub-region, **East Toronto** and **North Toronto** tied for the 8<sup>th</sup> lowest fertility rate among teenagers in the province (1.4).
- In FY2016, 0.7% of women who gave birth were under 20 years of age, the 2<sup>nd</sup> lowest proportion in the province. 36.4% of women were 35 years or older, the highest in the province.
- The overall mean age of mothers giving birth in this LHIN was 32.7, the **highest** age in the province.
  - By sub-region, **North Toronto**, **West Toronto**, **Mid-East Toronto**, **Mid-West Toronto** and **East Toronto** had the highest (tied), 3<sup>rd</sup> highest, 4<sup>th</sup> highest (tied) and 8<sup>th</sup> highest overall mean age of mothers giving birth in the province (33.2, 32.8, 32.6, 32.6 and 32.4, respectively).
- In 2016, the stillbirth rate per 1,000 live births in Toronto Central was 7.3.
  - By sub-region, **North Toronto** had the **lowest** stillbirth rate in the province (4.0).

### Multiple Births

- The multiple live birth rate per 100 live births in 2016 was 3.7, the 2<sup>nd</sup> highest rate in the province.
  - By sub-region, **North Toronto** and **West Toronto** had the 4<sup>th</sup> and 6<sup>th</sup> highest multiple live birth rates in the province (4.5 and 4.3, respectively).

### Pre-Term Births

- In 2016, the pre-term birth rate per 100 live births was 8.7.
  - By sub-region, **West Toronto** had the 7<sup>th</sup> highest pre-term birth rate in the province (9.4 per 100 births).

### Size for Gestational Age and Birth Weight

- The low birth weight rate per 100 live births in Toronto Central was 7.3, the 2<sup>nd</sup> highest rate in the province.
  - By sub-region, **Mid-West Toronto** had the 8<sup>th</sup> highest low birth weight rate in the province (7.9).
- In 2016, the small for gestational age rate per 100 live births was 10.4.
- In 2016, the large for gestational age rate per 100 live births was 7.6.
  - By sub-region, **Mid-West Toronto** and **North Toronto** had the 3<sup>rd</sup> and 8<sup>th</sup> lowest large for gestational age rate in the province (6.2 and 6.7, respectively).

### Attendants, Assisted Delivery & Epidural Anaesthesia during Labour

- In Toronto Central, 85.5% of hospital births were attended by an obstetrician. 5.1% were attended by a midwife, the lowest proportion in the province.
- Among vaginal deliveries, the overall assisted delivery rate for Toronto Central women was 16.8 and using vacuum extraction was 13.1. Both of these rates were the **highest** in the province. Assisted delivery rate using forceps was 2.9.
- The epidural rate for vaginal deliveries was 73.1, the **highest** rate in the province. Epidural rate for all deliveries was 61.8, the **highest** rate in the province.

### Caesarean Deliveries

- In FY 2016/17, the total Caesarean section rate per 100 deliveries was 30.0.
- The rate of primary Caesarean section rate (the mother's first Caesarean, regardless if she had given birth vaginally before) was 22.0 per 100 deliveries, the **highest** rate in the province. Primary Caesarean section rate was lower in women under 35 years of age (20.2) compared to those 35 and over (25.5).
- The rate of repeat Caesarean sections in Toronto Central was 84.5 per 100 deliveries.

### Breastfeeding

- The rate of exclusive breastfeeding at discharge among term live births in this LHIN was 70%, the 2<sup>nd</sup> highest rate in the province.

## Births and Maternal Outcomes, Ontario

	Toronto Central	Ontario	Comments <sup>†</sup>
Total births in Ontario, LHIN of maternal residence	13,849	141,163	
Hospital	13,113	136,505	
Home	439	3,813	
Birth Centre	281	572	
Crude birth rate (per 1,000 population)	10.0	9.8	
Stillbirth rate (per 1,000 live births)	7.3	8.1	
Multiple live birth rate (per 100 live births)	3.7	3.3	
Rate of preterm birth (<37 weeks) (%) <sup>*</sup>	8.3%	8.2%	
Preterm birth rate (per 100 live births) <sup>**</sup>	8.7	8.1	
Total pregnancies in Ontario, LHIN of maternal residence	13,621	138,781	
Fertility rate (per 1,000 females of reproductive age)			
Overall rate (15 to 49)	37.7	41.2	
Teen rate (15 to 19)	3.6	6.3	
Distribution of maternal age (%)			
<20	0.7%	1.9%	
≥ 35	36.4%	23.8%	
Mean age of mother at birth of first infant	31.8	29.3	
Overall mean age of mother at birth	32.7	30.7	
Rate of Caesarean delivery (%), LHIN of hospital	33.1%	28.4%	
Total Caesarean Section Rate	30.0	28.4	
Primary Caesarean Section Rate, LHIN of patient	22.0	19.0	
Primary C-Section Rate (< 35 years)	20.2	17.9	
Primary C-Section Rate (≥ 35 years)	25.5	22.9	
Repeat Caesarean Section Rate	84.5	82.7	
Epidural Rate for Vaginal Deliveries	73.1	60.3	
Epidural Rate for All Deliveries	61.8	51.0	
Assisted Delivery Rate Among Vaginal Deliveries			
Overall	16.8	12.3	
Vacuum Extraction	13.1	9.1	
Forceps	2.9	2.8	
Healthcare provider who caught the baby for hospital births (%), LHIN of hospital			
Obstetrician	85.5%	78.8%	
Family doctor	4.9%	7.4%	
Midwife	5.1%	7.4%	
Other	4.5%	6.4%	
Low birth weight rate (per 100 live births)	7.3	6.8	
Fullterm low birth weight rate (per 100 live births)	2.0	2.0	
Births small for gestational age (%) <sup>*</sup>	10.3%	9.7%	
Small for gestational age (per 100 live births) <sup>**</sup>	10.4	9.6	
Births large for gestational age (%) <sup>*</sup>	7.5%	9.7%	
Large for gestational age (per 100 live births) <sup>**</sup>	7.6	9.8	
Rate of exclusive breastfeeding among term live hospital births (%), LHIN of maternal residence <sup>‡</sup>	70.2%	62.8%	

<sup>‡</sup>Results for exclusive breastfeeding for Central West, Toronto Central, Central, Central East, Unknown LHINs and Ontario should be interpreted with caution due to the large percentage of missing values.

<sup>†</sup>Ranking in the province compared to other LHINs.

<sup>\*</sup> As reported by BORN Ontario

<sup>\*\*</sup> As reported by Public Health Ontario

### Maternal smoking, alcohol and drug use during pregnancy among all women who live in Ontario and who had a live birth or stillbirth (LHIN of maternal residence), 2016/17 (BORN)

- In Toronto Central, the rate of women who self-identified as non-smokers at first prenatal visit was 96.5%, the 2<sup>nd</sup> highest proportion in the province. At the time of labour, 97.6% were non-smokers, the 2<sup>nd</sup> highest proportion in the province.
  - The prevalence of smoking 1-10 cigarettes and 10+ cigarettes at the first prenatal visit was 2.2% and 0.7%, respectively.
- 2.6% of the women reported drinking alcohol, similar to the provincial value. 0.9% reported using drugs during pregnancy, the 2<sup>nd</sup> lowest proportion in the province.

	Toronto Central	Ontario	Comments <sup>†</sup>
<b>Maternal smoking at first prenatal visit (%) LHIN of maternal residence‡</b>			
% women who reported smoking (0) cigarettes/day	96.5%	90.7%	2 <sup>nd</sup> highest
% women who reported smoking (1 – 10) cigarettes/day	2.2%	5.5%	2 <sup>nd</sup> lowest
% women who reported smoking (10+) cigarettes/day	0.7%	3.2%	Lowest
<b>Maternal smoking at time of labour (%)</b>			
% women who reported smoking (0) cigarettes/day	97.6%	92.5%	2 <sup>nd</sup> highest
% women who reported smoking (1 – 10) cigarettes/day	1.6%	4.6%	2 <sup>nd</sup> lowest
% women who reported smoking (10+) cigarettes/day	0.6%	2.6%	Lowest
Alcohol consumption during pregnancy (%)	2.6%	2.6%	
Drug and substance exposure during pregnancy (%)	0.9%	2.3%	2 <sup>nd</sup> lowest

<sup>†</sup>Ranking in the province compared to other LHINs.

<sup>‡</sup>Results for smoking (at first prenatal visit, at time of labour), alcohol consumption during pregnancy, and drug and substance exposure during pregnancy for Toronto Central LHIN should be interpreted with caution due to the large percentage of missing cases

### Life Expectancy

- Life expectancy at birth for both males and females in 2012-2014 was 84 years. By sex, life expectancy at birth for males in Toronto Central LHIN was 82 years, and 87 years for females.
- Life expectancy at age 65 for both sexes from 2012-2014 was 23 years. By sex, life expectancy at age 65 for males in Toronto Central LHIN was 21 years. Life expectancy at age 65 for females from 2012-2014 was 24 years, the **highest** amongst all the LHINs.

	Toronto Central LHIN	Ontario	Rank among LHINs <sup>†</sup>
<b>Life Expectancy</b>			
<b>Life expectancy at birth- Both Sexes 2012-14</b>	84.3	82.3	
<b>Life expectancy at birth- Male 2012-14</b>	81.8	80.2	
<b>Life expectancy at birth- Female 2012-14</b>	86.5	84.3	
<b>Life expectancy at age 65- Both Sexes 2012-14</b>	22.9	20.9	
<b>Life expectancy at age 65- Male 2012-14</b>	21.1	19.3	
<b>Life expectancy at age 65- Female 2012-14</b>	24.4	22.2	Highest

<sup>†</sup>Ranking in the province compared to other LHINs (highest and lowest 2).

### **Mortality and Potential Years of Life Lost**

- In 2012, 7,061 Toronto Central LHIN residents died.
- The all-cause mortality rate for LHIN residents was 583 per 100, 000 population in 2012.
- Ischaemic heart disease was the leading cause of death in Toronto Central LHIN, followed by Dementia and Alzheimer's disease and cancer of lung and bronchus.
- 48,343 years of potential life were lost by LHIN residents in 2012.
- The LHIN's potential years of life lost (PYLL) rate for 2012 was 4,297 per 100,000 population aged less than 75. Since 2007, the PYLL rate increased by 6.4% for Toronto Central LHIN residents.
  - By sub-region, **North Toronto** had the 8<sup>th</sup> lowest all-cause PYLL rate per 100,000 population in Ontario (3,171).
- The leading causes of PYLL in 2012 were Intentional self-harm, Ischaemic heart disease and perinatal conditions.

## Mortality, Potential Years of Life Lost

	Toronto Central LHIN	Ontario	Rank among LHINs†	Range across TC sub-regions (2010-2012)
<b>Mortality, 2012</b>				
Total deaths, 2012	7,061	90,525		840-1,716
% change in total deaths (2007-2012)	3.4%	4.1%		NA
All-cause mortality rate per 100,000 population	583.4	647.9		554.3-682.0
% change in all-cause mortality rate (2007-2012)	-2.5%	-0.7%		NA
% of deaths that were premature (age < 75)	38.5%	37.3%		26.4%-53.1%
<b>Top 10 leading causes of death, 2012 (rates per 100,000 population)<sup>3</sup></b>				
Ischaemic heart disease	78.8	98.0		69.3-103.1
Dementia & Alzheimer's disease	46.8	55.6		31.2-66.0
Cancer of lung & bronchus	38.8	50.3		34.3-45.8
Cerebrovascular diseases	30.4	36.6		22.1-36.4
Chronic lower respiratory diseases	19.4	28.4		16.1-24.3
Cancer of colon, rectum, anus	19.1	23.4		17.0-24.0
Cancer of lymph, blood & related	78.8	98.0		13.3-21.8
Falls	17.0	20.0		13.5-19.8
Influenza & pneumonia	17.2	17.4		NA
Cancer of breast	14.9	15.2		NA
<b>Potential years of life lost (PYLL), 2012</b>				
Total PYLL, 2012	48,343	551,256		5,968-11,870
% change in PYLL (2007-2012)	12.4%	-0.6%		NA
PYLL rate per 100,000 population (age < 75)	4,297	4,405		3,171.3-5,518.5
% change in PYLL rate (2007-2012)	6.4%	-5.0%		NA
<b>Top 10 leading causes of PYLL, 2012 (rates per 100,000 population, age &lt; 75)<sup>4</sup></b>				
Ischaemic heart disease	265.7	341.6		228.1-486.9
Cancer of lung & bronchus	207.9	261.5		178.8-293.0
Intentional self-harm	149.9	363.7		271.1-431.5
Perinatal conditions	263.6	306.7	2 <sup>nd</sup> highest	202.0-403.9
Accidental poisoning		207.7		141.3-257.6
Cancer of lymph, blood & related	85.0	138.9		NA
Congenital malformations, deformations,	104.4	158.4		50.0-182.8
Cancer of breast	145.7	129.9		104.8-183.9
Cirrhosis & other liver diseases	87.7	142.7		NA
Symptoms, signs, ill defined	151.2	69.1	highest	NA

<sup>3</sup> Mean rate from 2010-2012

<sup>4</sup> Mean rate from 2010-2012

## General Health, Risk Factors, and Prevention

### General Health

- In 2015-16, 67% of Toronto Central LHIN residents said they had very good or excellent health, which is **significantly higher** than the Ontario rate.
  - Very good or excellent health was significantly more prevalent in **North Toronto** and **Mid-East Toronto** sub-regions compared to Ontario.
- 72% reported very good or excellent mental health. The proportion declined between 2005 and 2014 as it did in Ontario, overall.
- 24% of Toronto Central residents reported that most days were “quite a bit” or “extremely” stressful.

### Prevention

- Only 86% of Toronto Central residents reported having a regular medical doctor **significantly lower** than Ontario, overall.
  - The proportion was also lower than Ontario in three sub-regions: **West Toronto**, **Mid-West Toronto**, and **Mid-East Toronto**.
- 34% of residents of Toronto Central LHIN indicated that they received a flu shot in the year preceding the survey.

### Risk Factors

- 16% of Toronto Central residents reported daily or occasional smoking in 2015-16.
- 22% of Toronto Central residents reported heavy drinking. Heavy drinking is defined as having consumed 5 or more drinks for males and 4 or more drinks for women on at least one occasion at least once a month during the past year.
- 46% of adult Toronto Central residents were either overweight or obese, which is **significantly lower** than the Ontario rate. Four of five sub-regions in Toronto Central had **significantly lower** rates of overweight or obesity.
- 30% of Toronto Central residents were physically inactive—now defined as less than 150 minutes of moderate to vigorous activity per week. This is significantly better than the Ontario rate of 42%.
- 73% of Toronto Central residents did not consume enough fruits and vegetables (i.e., had fewer than 5 servings of fruits or vegetables daily).

## General Health, Risk Factors, and Prevention; Toronto Central LHIN

	Toronto Central LHIN 2015-16	Ontario (2015-16)	Rank among LHINs <sup>†</sup> (2015-16)	Range across TC sub- regions (2011-14)*
<b>General Health</b>				
General health, % of the population age 12+ with...				
Very good or excellent self-perceived health	67% <sup>-1</sup>	61%	Highest	58-74%
Very good or excellent self-perceived mental health	72%	71%		65-76%
Days that are 'quite a bit' or 'extremely' stressful (age 15+)	24%	22%	3 <sup>rd</sup> highest	
<b>Prevention</b>				
Use of Health Services and Preventive Care, % of the population age 12+ who...				
Have a regular medical doctor	86% <sup>-1</sup>	90%	2 <sup>nd</sup> lowest	84-90%
Have consulted with family doctor/general practitioner (past yr)	74%	74%		
Received flu shot in the past year	34%	33%		
<b>Risk Factors</b>				
Risk factors, % of the population age 12+ who...				
Are daily or occasional smokers	16%	17%		13-20% <sup>c</sup>
Are exposed to second-hand smoke in the home	6.7% <sup>c</sup>	6.9%		
Are heavy drinkers	22%	18%		
Are overweight or obese (age 18+)	46% <sup>-1</sup>	61%	Lowest	37-47%
Are overweight (age 18+)	32%	35%	2 <sup>nd</sup> lowest	27-35%
Are obese (age 18+)	14% <sup>-1</sup>	26%	Lowest	10-14% <sup>c</sup>
Are physically inactive	30% <sup>-1</sup>	42%	Lowest	36-49%
Consume < 5 servings of fruits/vegetables daily	73%	72%		56-66%

\*2011-2014 sub-region rates are not directly comparable with LHIN and Ontario rates from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

<sup>†</sup>Top or bottom 3 ranking in the province, compared to other LHINs. Interpret with caution, rank based on point estimate, which may or may not be significantly different from Ontario. See significance flags for each measure below.

<sup>1</sup> LHIN is **significantly higher** than Ontario

<sup>-1</sup> LHIN is **significantly lower** than Ontario

<sup>c</sup> Estimates with high sampling variability (CV between 16.6-33.3) must be used with caution.



## Chronic Conditions

### Prevalence, mortality, hospital separations and hospital days of stay for selected chronic conditions

- 34% of Toronto Central residents (aged 12+) reported having a one or more chronic conditions while 11.7% had two or more chronic conditions.
- Of note, the prevalence rate for residents with one or more chronic conditions was **significantly lower** than Ontario (39.6%) and was the **lowest** among the LHINs.
- Additionally, the prevalence rate for residents with two or more chronic conditions was **significantly lower** than Ontario and was the **lowest** among the LHINs.
- Chronic conditions with the highest or lowest prevalence rates compared to other LHINs were as follows: Asthma - **Lowest**; COPD (35+) - **Lowest**; Diabetes - **Lowest**; High blood pressure - **Lowest**
- The mean health care cost per user for Toronto Central residents in 2015/16 was \$2,950 (\$2,750 for Ontario).
- 6.0% of the patients were complex (4+ conditions), 5.8% for Ontario.
- The mean healthcare cost of a complex patient was \$25,600 compared to \$22,050 for Ontario. Toronto Central LHIN was among the 3 LHINs with the highest mean cost per complex patient.
- 4.9% of the patients were high cost user patients, 5.0% for Ontario.
- The mean healthcare cost per high cost user was \$42,400 compared to \$37,700 for Ontario. Toronto Central LHIN was among the 3 LHINs with the highest cost per high cost user.
- The hospitalization rate (per 100,000 population) for cardiovascular disease in Toronto Central LHIN was 751.5 compared to 916.9 for Ontario. Toronto Central LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for cerebrovascular disease in Toronto Central LHIN was 111.3 compared to 133.2 for Ontario. Toronto Central LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for diabetes in Toronto Central LHIN was 81.6 compared to 100.2 for Ontario. Toronto Central LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for ischemic heart disease in Toronto Central LHIN was 227.4 compared to 314.8 for Ontario. Toronto Central LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for lower respiratory disease in Toronto Central LHIN was 155.1 compared to 208.9 for Ontario. Toronto Central LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for respiratory disease in Toronto Central LHIN was 511.6 compared to 599.7 for Ontario. Toronto Central LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for stroke in Toronto Central LHIN was 95.7 compared to 112.5 for Ontario. Toronto Central LHIN was among the 3 LHINs with the lowest rates.

### Chronic Conditions, Complex Patients

Condition	Toronto Central	Ontario	Comment
<b>Self-reported prevalence (2015-16), rate per 100, age 12+</b>			
Arthritis	18	20.6	
Asthma	6.0 <sup>C</sup>	8.7	<i>Lowest</i>
Cancer		1.3	
Chronic Obstructive Pulmonary Disease (COPD) (age 35+)	2.1 <sup>D</sup>	4.0	<i>Lowest</i>
Diabetes	5.4 <sup>C</sup>	7.4	<i>Lowest</i>
High blood pressure	15.3	18.2	<i>Lowest</i>
Heart disease	5.1 <sup>C</sup>	4.6	
Suffer from effects of stroke		1.3	
Have a chronic condition	34.0	39.6	<i>Lowest</i>
Have multiple chronic conditions <sup>1</sup>	11.7	16.2	<i>Lowest</i>

C: 0.15<CV<=0.25 Marginal (Use with caution-high sampling variability)

D: 0.25<CV<=0.35 Marginal (Use with caution-high sampling variability)

1 - Of the selected conditions on this list

### Acute Inpatient Hospital Separations (2016 calendar year)

#### AGE STANDARDIZED rate per 100,000

Asthma	32.1	34.3
Cardiovascular disease	751.5	916.9
Cerebrovascular disease	111.3	133.2
COPD	119.7	171.8
Diabetes	81.6	100.2
Hypertension	17.6	18.0
Ischemic heart disease	227.4	314.8
Lower respiratory disease	155.1	208.9
Respiratory disease	511.6	599.7
Stroke	95.7	112.5

### Complex Patients and high cost users, 2015/16

Mean health care cost per user \$	\$ 2,950	\$ 2,750
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$ 25,600	\$ 22,050
# of patients that are complex	61,600	680,115
% of all patients (health care users) that are complex	6.0%	5.8%
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$ 42,400	\$ 37,700
# of patients that are high cost users	50,260	581,670
% of patients that are high cost users	4.9%	5.0%

## WEST TORONTO SUB-REGION (701)

- The prevalence rate (per 100) for the population with asthma was 5.3 (Ontario - 7.8). **West Toronto** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The prevalence rate (per 100) for the population with diabetes was 3.7 (Ontario - 6.8). **West Toronto** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The mean health care cost per user in **West Toronto** sub-region was \$3,050 (Ontario - \$2,750).
- 6.2% of patients from **West Toronto** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **West Toronto** sub-region was \$26,050 (Ontario - \$22,050).
- 5.0% of patients from **West Toronto** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **West Toronto** sub-region was \$43,100 (Ontario - \$37,700). It was among the 8 sub-regions with the highest mean cost per high cost user.

## Chronic Conditions, Complex Patients

Condition	West Toronto	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	16.6	17.3	47
Asthma	5.3	7.8	67
Diabetes	3.7	6.8	64
High blood pressure	15.5	18.1	58
Heart disease	4.1	5.0	58

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	45.6	17.5
Cardiovascular disease	813.0	60
Cerebrovascular disease	124.1	58
COPD	107.3	64
Diabetes	85.6	55
Hypertension	19.8	22
Ischemic heart disease	233.2	68
Lower respiratory disease	155.8	61
Respiratory disease	555.8	56
Stroke	106.6	54

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,050	36.5
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$26,050	11
# of patients that are complex	12,770	
% of all patients (health care users) that are complex	6.2%	37
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$43,100	6
# of patients that are high cost users	10,380	
% of patients that are high cost users	5.0%	46

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## MID-WEST TORONTO SUB-REGION (702)

- The prevalence rate (per 100) for the population with high blood pressure was 12.9 (Ontario - 18.1). **Mid-West Toronto** sub-region's rate was **significantly lower** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 212.1 (Ontario - 314.8). **Mid-West Toronto** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Mid-West Toronto** sub-region was \$3,050 (Ontario - \$2,750).
- 5.9% of patients from **Mid-West Toronto** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Mid-West Toronto** sub-region was \$26,550 (Ontario - \$22,050). It was among the 8 sub-regions with the highest mean cost per complex patient.
- 4.9% of patients from **Mid-West Toronto** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Mid-West Toronto** sub-region was \$44,400 (Ontario - \$37,700). It was among the 8 sub-regions with the highest mean cost per high cost user.

## Chronic Conditions, Complex Patients

Condition	Mid-West Toronto	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	13.7	17.3	64
Asthma	7.8	7.8	39
Diabetes	F	6.8	
High blood pressure	12.9	18.1	70
Heart disease	6.0	5.0	25

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	36.5	35
Cardiovascular disease	780.2	66
Cerebrovascular disease	128.5	51
COPD	115.4	63
Diabetes	88.2	53
Hypertension	17.3	40
Ischemic heart disease	212.1	72
Lower respiratory disease	154.0	62
Respiratory disease	528.1	62
Stroke	113.3	44

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,050	36.5
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$26,550	7
# of patients that are complex	15,930	
% of all patients (health care users) that are complex	5.9%	46
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$44,400	4
# of patients that are high cost users	13,205	
% of patients that are high cost users	4.9%	48

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## NORTH TORONTO SUB-REGION (703)

- The prevalence rate (per 100) for the population with diabetes was 2.8 (Ontario - 6.8). **North Toronto** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The prevalence rate (per 100) for the population with high blood pressure was 12 (Ontario - 18.1). **North Toronto** sub-region's rate was **significantly lower** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for asthma was 16.4 (Ontario - 34.3). **North Toronto** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 635.6 (Ontario - 916.9). **North Toronto** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 87.9 (Ontario - 133.2). **North Toronto** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 74.5 (Ontario - 171.8). **North Toronto** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for diabetes was 48.9 (Ontario - 100.2). **North Toronto** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 169.0 (Ontario - 314.8). **North Toronto** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 93.5 (Ontario - 208.9). **North Toronto** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 385.3 (Ontario - 599.7). **North Toronto** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for stroke was 77.3 (Ontario - 112.5). **North Toronto** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **North Toronto** sub-region was \$2,800 (Ontario - \$2,750).
- 5.5% of patients from **North Toronto** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **North Toronto** sub-region was \$25,500 (Ontario - \$22,050).
- 4.8% of patients from **North Toronto** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **North Toronto** sub-region was \$39,300 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	North Toronto	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	13.3	17.3	67
Asthma	5.8	7.8	63
Diabetes	2.8	6.8	66
High blood pressure	12.0	18.1	74
Heart disease	4.4	5.0	51

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	16.4	34.3
Cardiovascular disease	635.6	916.9
Cerebrovascular disease	87.9	133.2
COPD	74.5	171.8
Diabetes	48.9	100.2
Hypertension	17.9	18.0
Ischemic heart disease	169.0	314.8
Lower respiratory disease	93.5	208.9
Respiratory disease	385.3	599.7
Stroke	77.3	112.5

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$2,800	\$ 2,750
Complex Patients (4+ conditions)		
Mean health care cost per complex patient \$	\$25,500	\$ 22,050
# of patients that are complex	9,735	680,115
% of all patients (health care users) that are complex	5.5%	5.8%
High cost users (Top 5%) #		
Mean health care cost per high cost user \$	\$39,300	\$ 37,700
# of patients that are high cost users	8,520	581,670
% of patients that are high cost users	4.8%	5.0%

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.



## MID-EAST TORONTO SUB-REGION (704)

- The prevalence rate (per 100) for the population with diabetes was 3.3 (Ontario - 6.8). **Mid-East Toronto** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The prevalence rate (per 100) for the population with high blood pressure was 12.6 (Ontario - 18.1). **Mid-East Toronto** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 218.1 (Ontario - 314.8). **Mid-East Toronto** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Mid-East Toronto** sub-region was \$3,150 (Ontario - \$2,750).
- 6.3% of patients from **Mid-East Toronto** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Mid-East Toronto** sub-region was \$26,950 (Ontario - \$22,050). It was among the 8 sub-regions with the highest mean cost per complex patient.
- 5.1% of patients from **Mid-East Toronto** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Mid-East Toronto** sub-region was \$44,500 (Ontario - \$37,700). It was among the 8 sub-regions with the highest mean cost per high cost user.

## Chronic Conditions, Complex Patients

Condition	Mid-East Toronto	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	16.2	17.3	52
Asthma	7.8	7.8	40
Diabetes	3.3	6.8	65
High blood pressure	12.6	18.1	71
Heart disease	4.9	5.0	39

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	30.8	45
Cardiovascular disease	800.6	63
Cerebrovascular disease	127.5	53
COPD	160.5	49
Diabetes	98.4	47
Hypertension	23.5	15
Ischemic heart disease	218.1	70
Lower respiratory disease	194.9	49
Respiratory disease	586.1	52
Stroke	105.6	56

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,150	27.5
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$26,950	6
# of patients that are complex	8,135	
% of all patients (health care users) that are complex	6.3%	35
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$44,500	3
# of patients that are high cost users	6,625	
% of patients that are high cost users	5.1%	44

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## EAST TORONTO SUB-REGION (705)

- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 106.9 (Ontario - 133.2). **East Toronto** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for stroke was 90.6 (Ontario - 112.5). **East Toronto** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **East Toronto** sub-region was \$2,800 (Ontario - \$2,750).
- 6.1% of patients from **East Toronto** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **East Toronto** sub-region was \$23,450 (Ontario - \$22,050).
- 4.7% of patients from **East Toronto** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **East Toronto** sub-region was \$40,500 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	East Toronto	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	14.1	17.3	62
Asthma	7.8	7.8	38
Diabetes	5.6	6.8	56
High blood pressure	16.5	18.1	53
Heart disease	4.4	5.0	53

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	32.0	42
Cardiovascular disease	823.4	58
Cerebrovascular disease	106.9	74
COPD	167.0	46
Diabetes	96.8	48
Hypertension	14.9	51.5
Ischemic heart disease	315.4	45
Lower respiratory disease	204.7	46
Respiratory disease	578.2	53
Stroke	90.6	72

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$2,800	45.5
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$23,450	23.5
# of patients that are complex	15,025	680,115
% of all patients (health care users) that are complex	6.1%	39
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$40,500	10.5
# of patients that are high cost users	11,530	581,670
% of patients that are high cost users	4.7%	53

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## Human Resources

### Physicians

- In 2016, there were approximately 5,720 physicians in Toronto Central LHIN.
  - This represents the equivalent of approximately 445 physicians for every 100,000 persons in Toronto Central LHIN.
  - The number of physicians in Toronto Central LHIN increased by close to 7% between 2013 and 2016 with similar growth occurring among family medicine physicians than specialists.
- Between 2013 and 2016, there was an increase of approximately 146 family physicians in Toronto Central LHIN.
  - The majority of the increase in Toronto Central LHIN occurred with 103 additional family physicians between 30-64 years of age.
- In 2016, approximately 18% of family physicians in Toronto Central LHIN were at or beyond the age of retirement (65 years of age or older).

### Nurses

- In 2016, there were 21,510 total nurses in Toronto Central LHIN.
- The total number of nurses increased by 4% between 2013 and 2016.
  - While the number of Registered Nurses in Toronto Central LHIN between 2013 and 2016 remained stable, there were substantial increases in the number of Nurse Practitioners (31% increase) and Registered Practical Nurses (16% increase) during the same time period.
- In 2016, there were approximately 1675 nurses for every 100,000 residents of Toronto Central LHIN.

### Other Allied Health Professionals

- Between 2013 and 2016, the greatest growth in the number of allied health professionals in Toronto Central LHIN was among Pharmacists (an increase of 387 or about 23%) and Midwives (an increase of 9 or approximately 11%).
- There was also notable growth in the number of Psychologists (72 additional or 11%), Optometrists (18 additional or 10%) and Occupational Therapists (83 additional or 9%) in Toronto Central LHIN between 2013 and 2016.
- Opticians in Toronto Central LHIN experienced a 6% reduction in their raw numbers (20 fewer) and slightly higher reductions in their numbers per capita.

Toronto Central LHIN					
Physicians	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Total Family Medicine Physicians</b>					
Number of family medicine physicians	1,656	1,718	1,752	1,802	8.8%
Rate per 100,000 population	135.0	137.8	139.3	140.3	3.9%
<b>Total Specialists</b>					
Number of specialists	3,677	3,786	3,852	3,918	6.6%
Rate per 100,000 population	299.8	303.7	306.3	305.0	1.8%
<b>Total Physicians</b>					
Number of total physicians	5,333	5,504	5,604	5,720	7.3%
Rate per 100,000 population	434.8	441.6	445.7	445.3	2.4%
<b>Family Physicians, by age group - count</b>					
Age <30	45			64	42.2%
Age 30-64	1,304			1,407	7.9%
Age 65-74	254			278	9.4%
Age 75+	53			53	0.0%
Grand Total	1,656			1,802	8.8%
Age 65+	307			331	7.8%
<b>Family Physicians, by age group – percent</b>					
Age <30	2.7%			3.6%	30.7%
Age 30-64	78.7%			78.1%	-0.8%
Age 65-74	15.3%			15.4%	0.6%
Age 75+	3.2%			2.9%	-8.1%
Age 65+	18.5%			18.4%	-0.9%
Toronto Central LHIN					
Nurses	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Registered Nurses</b>					
Number of RNs	16,662	16,800	16,819	16,799	0.8%
Rate per 100,000 population	1,354.0	1,347.8	1,337.6	1,307.8	-3.4%
<b>Registered Practical Nurses</b>					
Number of RPN nurses	3,536	3,668	3,887	4,116	16.4%
Rate per 100,000 population	287.3	294.3	309.1	320.4	11.5%
<b>Nurse Practitioners</b>					
Number of NP nurses	454	474	550	595	31.1%
Rate per 100,000 population	36.9	38.0	43.7	46.3	25.6%
<b>Total Nurses</b>					
Total Nurse - Number of nurses	20,652	20,942	21,256	21,510	4.2%
Total Nurse - Rate per 100,000 population	1,678.2	1,680.1	1,690.5	1,674.6	-0.2%

Toronto Central LHIN					
Other Regulated Health Professionals	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Audiologists</b>					
Audiologist - Number	91	90	94	95	4.4%
Audiologist - Rate per 100,000 population	7.4	7.2	7.5	7.4	0.0%
<b>Midwives</b>					
Midwife - Number	81	88	79	90	11.1%
Midwife - Rate per 100,000 population	6.6	7.1	6.3	7.0	6.4%
<b>Occupational Therapists</b>					
Occupational Therapist - Number	900	915	967	983	9.2%
Occupational Therapist - Rate per 100,000 population	73.1	73.4	76.9	76.5	4.6%
<b>Opticians</b>					
Optician - Number	326	304	324	306	-6.1%
Optician - Rate per 100,000 population	26.5	24.4	25.8	23.8	-10.1%
<b>Optometrists</b>					
Optometrist - Number	189	195	198	207	9.5%
Optometrist - Rate per 100,000 population	15.4	15.6	15.7	16.1	4.9%
<b>Pharmacists</b>					
Pharmacist - Number	1,688	1,851	1,947	2,075	22.9%
Pharmacist - Rate per 100,000 population	137.2	148.5	154.8	161.5	17.8%
<b>Psychologists</b>					
Psychologist - Number	656	694	710	728	11.0%
Psychologist - Rate per 100,000 population	53.3	55.7	56.5	56.7	6.3%
<b>Speech-Language Pathologists</b>					
Speech-Language Pathologist - Number	346	333	338	349	0.9%
Speech-Language Pathologist - Rate per 100,000 population	28.1	26.7	26.9	27.2	-3.3%

## Primary Care

### Primary Care Enrolment

- Over 870,000 residents were enrolled with a PEM and 395,519 residents were affiliated with FFS physicians (i.e. not enrolled)
- LHIN residents were primarily affiliated with FHOs, and more than half of these patients were associated with a FHT. Almost one-quarter (24%) were affiliated with a FHG.
- There are 84 practices with 1392 physicians in the LHIN, and physicians were distributed across multiple primary care models: 657 physicians were affiliated with a FHO (the majority not with FHT), 355 using FFS model, and 305 with FHGs.

### Selected Measures from the Health Care Experience Survey

#### Self-reported access to, and satisfaction with, primary care

	Ontario (2017)	LHIN (2017)	Range Across TC sub-regions (2014-2017)
Percentage who are satisfied with health care in their community	87%	90% <sup>H</sup>	90% to 95%
Percentage with primary care providers (attached patients)	94%	93%	82% to 95%
Percentage who saw their primary care provider within the same day/next day when sick	40%	43%	42% to 52%
Percentage who went to ED for something that could have been treated by primary care provider	42%	32%	27% to 37%*
Percentage who found it difficult to access care after-hours without going to an emergency department	53%	48%	41% to 55%
Percentage who went to walk-in clinic in past 12 months	30%	33%	22% to 42%
Percentage who went to a walk in clinic for something that could have been treated by provider if they were available	92%	92%	88% to 95%*

*H=significantly higher than the province*

*L=significantly lower than the province*

*\* some sub-regions not reportable*

- Ninety percent (90%) of Toronto Central residents were satisfied with health care in their community, which was the highest proportion in Ontario, **significantly higher** than the provincial value (87%).
  - Mid-West Toronto (91%), Mid-East Toronto (95%), and East Toronto (91%) reported proportions greater than the provincial value.
- In 2017, 93% of Toronto Central adults (aged 16 years and older) had a primary care provider.
  - Mid-West Toronto reported a **significantly lower** attachment rate compared to Ontario at 89%.
- In 2017, 43% of Toronto Central LHIN residents were able to see their primary care provider within the same day/next day when they were sick.
  - Rates ranged from 42% in Mid-West Toronto to 51% in North Toronto.
- Second in the province, 32% of Toronto Central LHIN went to the ED for something that could have been treated by their primary care provider.
  - North Toronto sub-region reported **significantly lower** proportions than the province (27%).
- Ranked third in the province, 48% of LHIN residents found it difficult to access after-hours care without going to an ED.



- **West Toronto** sub-region (44%) reported **significantly lower** than provincial proportions.
- Toronto Central reported some of the highest proportions of residents attending walk-in clinics in the past 12 months.
  - **East Toronto** sub-region reported a **significantly higher** proportion at 42%.
  - Ninety-two percent (92%) felt that their walk-in visit could have been addressed by a primary care provider had one been available.

## Community Care

- Toronto Central LHIN ranks second highest in CMH&A\_Community Visits-Face to Face Visits per 1,000 population with 662 (province is 232).
- Toronto Central LHIN ranks second highest in CMH&A\_Community Visits- Non Face to Face Visits per 1,000 population with 289 (province is 126).
- Toronto Central LHIN ranks highest in CMH&A\_Resident DaysResident Days per 1,000 population with 1,215 (province is 271).
- Toronto Central LHIN ranks highest in CSS\_Community Visits-Face to Face Visits per 1,000 population with 722 (province is 385).
- Toronto Central LHIN ranks second highest in CSS\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population with 74 (province is 28).
- Toronto Central LHIN ranks second highest in CSS\_Resident Days (Assisted Living, Overnight stay care)Resident Days per 1,000 population with 758 (province is 366).
- Toronto Central LHIN ranks highest in CSS\_Community Visits-Face to Face Visits per 1,000 population 75+ with 9,862 (province is 5,365).
- Toronto Central LHIN ranks second highest in CSS\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population 75+ with 1,009 (province is 397).
- Toronto Central LHIN ranks second highest in CSS\_Resident Days (Assisted Living, Overnight stay care)Resident Days per 1,000 population 75+ with 10,357 (province is 5,110).

## Mental Health

### Wait Time for Community Services

- Assertive Community Treatment team and Counselling and treatment had the longest median wait times among the community mental health (MH) services in Toronto Central LHIN in 2017/18. With the exception of ACT team, counselling and treatment and day/night care, Toronto Central LHN had shorter median wait times than the province for all community MH services in 2017/18.
- Among the substance abuse (SA) services provided in Toronto Central LHIN, residential treatment had the longest median wait times (68 days), 26 days longer than the province's median wait in 2017/18.
- For problem gambling, only community treatment is provided in this LHIN. The median wait time for this treatment was the same as the provincial median wait of 10 days.

### Mental Health and Substance Abuse Emergency Department Visits

- In 2016/17, there were 28,500 unscheduled ED visits for Toronto Central residents where the main problem was a MH/SA condition. There were 34,097 visits with a MH/SA condition in any of the diagnostic fields.
- Between 2013/14 and 2016/17, there was 18.6% growth in visits with a MH/SA main problem diagnosis (lower than the province's value of 20.9%) and 20.0% growth in visits with a MH/SA condition in any diagnostic field (lower than the province's value of 21.1%).
- The MH/SA ED visit rate per 1,000 population was higher than the provincial value (22.2 compared to 19.2). Between 2013/14 and 2016/17 Toronto Central residents had the third lowest growth in visit rate (main diagnosis) in the province at 13.2%.
  - By sub-region, **Mid-East Toronto** had the 8<sup>th</sup> highest ED visit rate (32.3 per 1,000 population) where the main problem was a MH/SA condition.
- Visits with a MH/SA main problem diagnosis accounted for 6.6% of all ED visits for Toronto Central LHIN residents.
- In 2016/17, there were 368 ED visits of Toronto Central residents for opioid overdose. Of those, 49.7% were accidental.
- The crude rate of ED visits for opioid overdose in FY2016/17 for Toronto Central residents was 2.9, lower than the provincial value (3.5). Between 2013/14 and 2016/17, there was a 78.1% growth in the visit rate for opioid overdose for all Toronto Central residents, the second highest growth in the province.

## Unscheduled emergency department utilization for mental health and substance abuse conditions, Toronto Central LHIN and Ontario residents, 2016/17

Measure	Toronto Central LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient<sup>†</sup></b>				
Main problem visits	28,500	268,514	18.6%	
% of total ED visits	6.6%	4.3%	-	
Any problem visits	34,097	338,260	20.0%	
% of total ED visits	7.9%	5.5%	-	
Main problem, visits per 1,000	22.2	19.2	13.2%	
Any problem, visits per 1,000	26.5	17.1%	14.6%	
ED visits for opioid overdose	368	4,831	85.9%	
% of visits that were accidental	49.7%	50.1%	-	
Crude rate per 10,000 population	2.9	3.5	78.1%	

<sup>†</sup>LHIN of patient results for Ontario exclude out-of-province residents

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

### Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility

- In 2016/17, there were 45,424 unscheduled ED visits in Toronto Central LHIN hospitals, where the main problem was a MH/SA condition. 16.2% of these visits were made by homeless individuals, the **highest** proportion in the province.
- There were 8,431 admissions and 9,116 active cases who received treatment in adult designated MH units in Toronto Central LHIN hospitals. There were 8,522 discharges from these units with the total days of discharge patients equal to 224,944 days. The mean length of stay in Toronto Central LHIN MH units was 26.4 days, longer than all Ontarians (24.9 days). Residents from outside the LHIN accounted for 9.7% of the active cases treated in Toronto Central LHIN.
- Between 2013/14 and 2016/17, active cases, admissions and discharges decreased in Toronto Central LHIN hospitals by 2.7%, 2.6% and 1.8%, respectively. The total days of discharged patients decreased by 24.0%.
- Schizophrenia and psychotic disorders (31.5%) and bipolar and depressive disorders (30.2%) accounted for the largest proportions of active cases in Toronto Central LHIN hospitals in 2016/17. Compared with the provincial values, Toronto Central had larger proportions of active cases for schizophrenia and psychotic disorders, substance use disorders and feeding and eating disorders.
- There were 6,080 active cases, 5,629 admissions and 5,673 discharges for Toronto Central LHIN residents from Ontario adult designated MH units. Mean length of stay for Toronto Central LHIN residents was higher than the province (27.4 days compared to 24.8 days). 16.0% of Toronto Central LHIN resident active cases received treatment in hospitals outside the LHIN. Compared with the provincial rates, Toronto Central LHIN residents had similar rates of active cases, admissions, and discharges per 100,000 population age 15+.
- Active cases, admissions, discharges, total days and the associated rates decreased for Toronto Central LHIN residents between 2013/14 and 2016/17.

### Adult designated mental health unit utilization, Toronto Central LHIN hospitals and residents, 2016/17

Measure	Toronto Central LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient</b>				
Active cases	6,080	64,523	-8.0%	
Admissions	5,629	60,197	-8.9%	
Discharges	5,673	60,607	-7.8%	
Total Days	155,300	1,504,690	-15.7%	
Mean Length of Stay	27.4	24.8	-	
% Outflow Active Cases	16.0%	-	-	
Active Cases per 100,000 (age 15+)	551.5	548.5	-12.5%	
Admission per 100,000 (age 15+)	510.6	511.7	-13.3%	
Discharges per 100,000 (age 15+)	514.6	515.2	-12.4%	
<b>SCIPP Categories - % of total active cases</b>				
Short Stay	22.9%	27.4%	-	
Schizophrenia and other psychotic disorders	34.1%	27.0%	-	
Neurocognitive disorders	2.3%	3.1%	-	
Bipolar and depressive disorders	29.6%	29.6%	-	
Personality disorders	2.4%	3.0%	-	
Feeding and eating disorders	0.5%	0.4%	-	
Substance Use disorders	5.9%	5.5%	-	
Other disorders	2.3%	4.0%	-	
<b>LHIN of hospital</b>				
Active cases	9,116	64,738	-2.7%	
Admissions	8,431	60,383	-2.6%	
Discharges	8,522	60,795	-1.8%	
Total Days (discharged patients only)	224,944	1,512,754	-24.0%	
Mean Length of Stay	26.4	24.9	-	
% Inflow Active Cases	44.0%	-	-	Highest

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

## Surgery & Diagnostic Imaging

### Day Surgery and Cardiac Catheterization Utilization

#### Day Surgery and Cardiac Catheterization Visits

- In 2016/17, there were 158,077 day surgery and ambulatory cardiac catheterization visits to Toronto Central LHIN hospitals. Residents from outside the LHIN accounted for 58.4% of the visits. This was the highest rate of inflow for all LHINs.
- Between 2013/14 and 2016/17, there was an increase of 9.5% in Toronto Central LHIN hospital's day surgery and cardiac catheterization visits.
- There were 85,856 day surgery and ambulatory cardiac catheterization visits for Toronto Central LHIN residents. There was an increase in both the number and rate of visits between 2013/14 and 2016/17.
- In 2016/17, 23.3% of these visits occurred in hospitals outside the LHIN.
- Toronto Central LHIN residents had 66.8 day surgery and cardiac catheterization visits per 1,000 population. This rate was lower than the provincial rate of 93.9 and the lowest rate among all LHINs.
- The following sub-regions had among the eight lowest rates of visits per 1,000 population for all Ontario sub-regions:
  - Mid-West Toronto had the 4<sup>th</sup> lowest rate of visits per 1,000 population.
  - Mid-East Toronto had the 6<sup>th</sup> lowest rate of visits per 1,000 population.

#### Day surgery and ambulatory cardiac catheterization visits, Toronto Central LHIN and Ontario, 2016/17

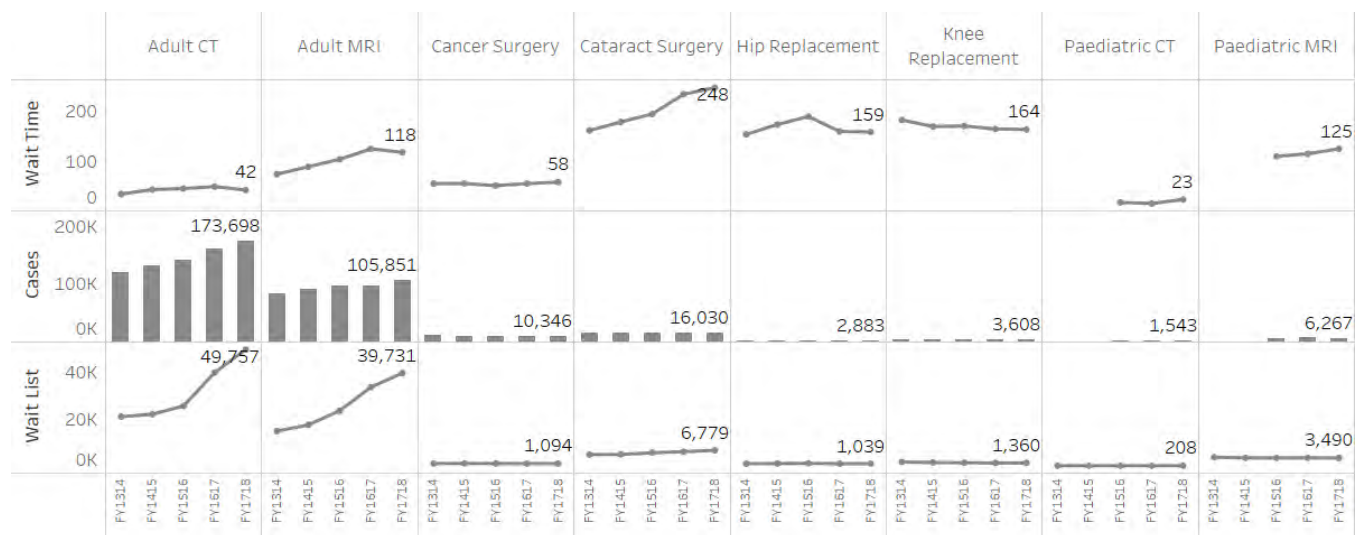
Measure	LHIN	Comments	Ontario†	LHIN % change 2013-14 - 2016/17	Range within LHINs	Range within TC sub-regions
<b>LHIN of hospital</b>						
Visits	158,077		1,322,943	9.5%	27,727 - 158,077	
% Inflow visits	58.4%	Highest			0.7% - 58.4%	
<b>LHIN of patient</b>						
Total population	1,284,522		13,982,984	4.4%	235,148 - 1,893,948	
Visits	85,856		1,313,103	8.0%	28,401 - 157,644	9,958 - 20,929
% Outflow visits	23.3%				3.0% - 39.0%	13.4% - 31.3%
Visits per 1,000 population	66.8	Lowest	93.9	3.1%	66.8 - 151.0	61.7 - 72.1
- age 0-17 years	13.9	Lowest	22.2		13.9 - 38.4	
- age 18-44 years	35.7	2 <sup>nd</sup> lowest	46.5		34.8 - 85.5	
- age 45-64 years	93.9	Lowest	125.3		93.9 - 183.0	
- age 65-79 years	176.5	Lowest	239.9		176.5 - 318.4	
- age 80+ years	138.5	Lowest	202.7		138.5 - 260.4	

†LHIN of patient results for Ontario exclude out-of-province residents

## Surgical & Diagnostic Imaging Wait Times

### Toronto Central LHIN Priority Procedures: Wait 2 90th Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

#### LHIN of Treatment

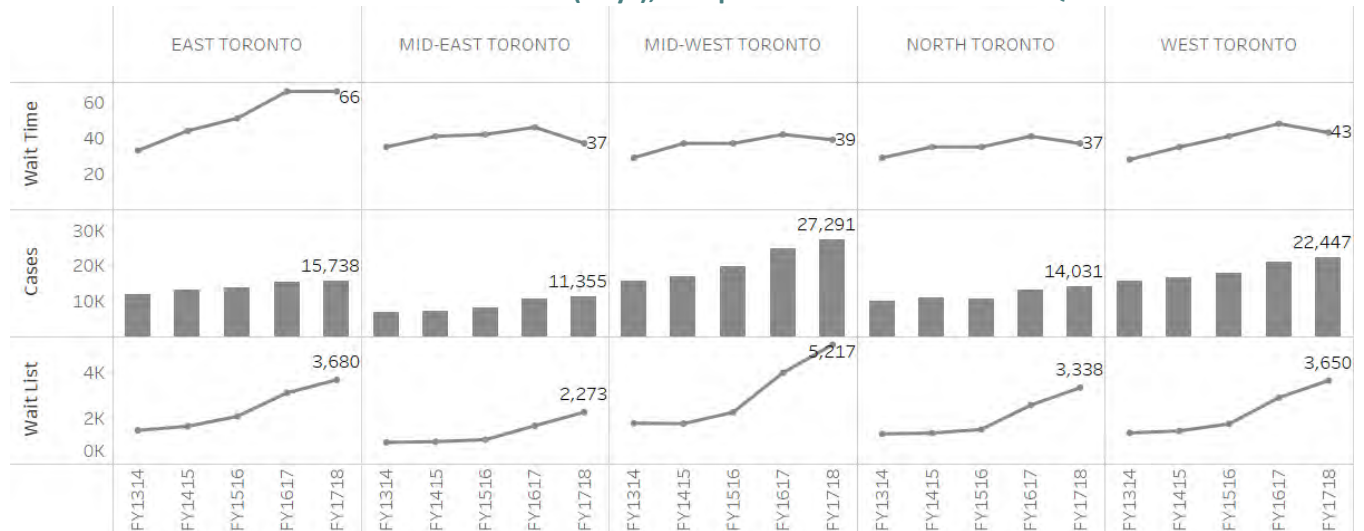


## Adult CT

- There were 173,698 adult CT scans completed in FY 2017-18; 11,864 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 42 days, 7 days shorter than the previous fiscal.
- In 2017/18, hospitals in the Toronto Central LHIN had the 7<sup>th</sup> longest wait time for adult CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 49,757 patients; 9,828 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Adult CT (Days), Completed Cases and Wait List Queue Trends



- Toronto Central LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 37 days to 66 days.

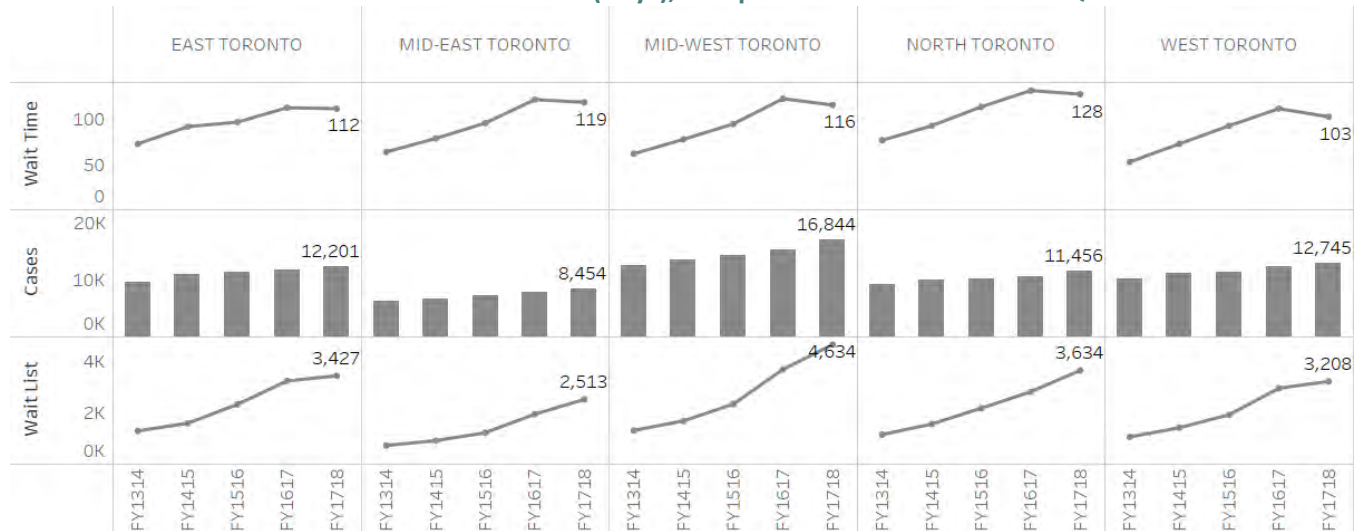


## Adult MRI

- There were 105,851 adult MRI scans completed in FY 2017-18; 8,113 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 118 days, 7 days shorter than the previous fiscal.
- In 2017/18, hospitals in the Toronto Central LHIN had the 4<sup>th</sup> longest wait time for adult MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 39,731 patients; 5,994 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Adult MRI (Days), Completed Cases and Wait List Queue Trends



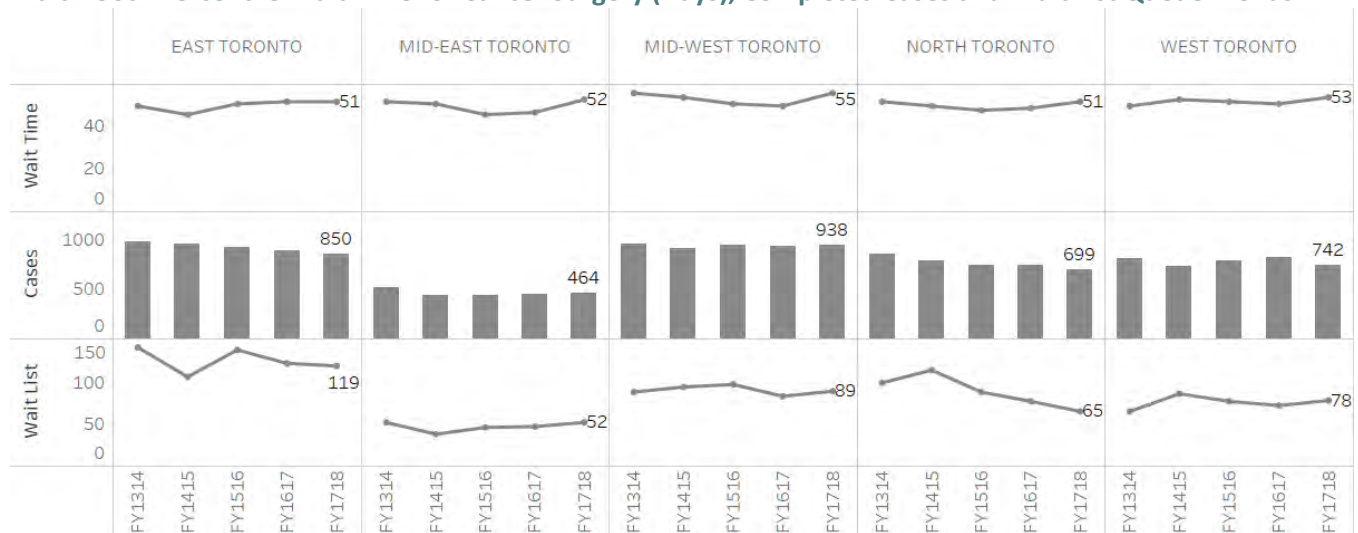
- Toronto Central LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 103 days to 128 days.

### Cancer Surgery

- There were 10,346 cancer surgeries completed in FY 2017-18; 192 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 58 days, 3 days longer than the previous fiscal.
- In 2017/18, hospitals in the Toronto Central LHIN had the 4<sup>th</sup> shortest wait time for cancer surgery.
- The wait list queue at the start of FY 2017-18 was 1,094 patients; 9 more queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90th Percentile Wait Time for Cancer Surgery (Days), Completed Cases and Wait List Queue Trends



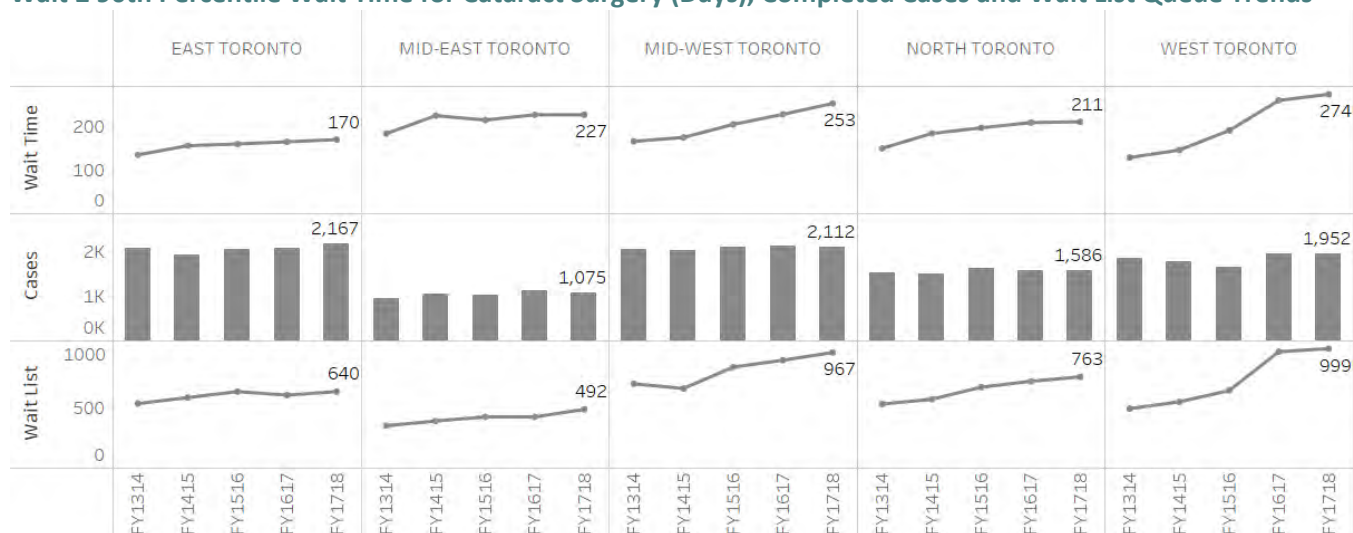
- Toronto Central LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 51 days to 55 days.

## Cataract Surgery

- There were 16,030 cataract surgeries completed in FY 2017-18; 6 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 248 days, 13 days longer than the previous fiscal.
- In 2017/18, hospitals in the Toronto Central LHIN had the 6<sup>th</sup> longest wait time for cataract surgery.
- The wait list queue at the start of FY 2017-18 was 6,779 patients; 609 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Cataract Surgery (Days), Completed Cases and Wait List Queue Trends



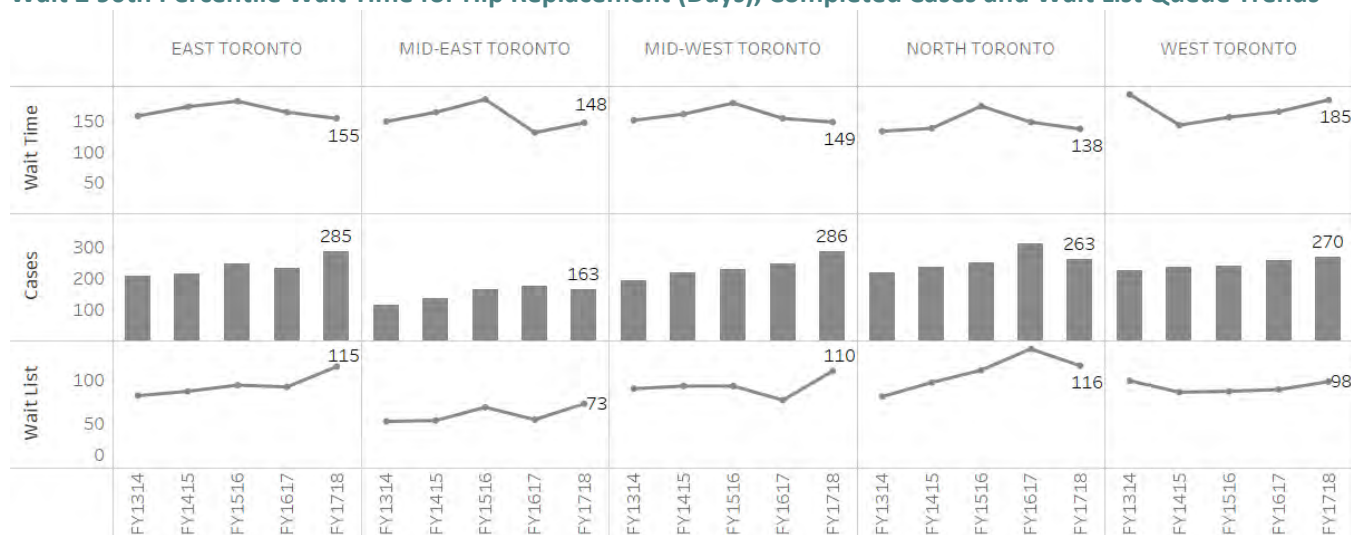
- Toronto Central LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 170 days to 274 days.

## Hip Replacement

- There were 2,883 hip replacement surgeries completed in FY 2017-18; 116 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 159 days, 1 day shorter than the previous fiscal.
- In 2017/18, hospitals in the Toronto Central LHIN had the 2<sup>nd</sup> shortest wait time for hip replacement surgery.
- The wait list queue at the start of FY 2017-18 was 1,039 patients; 9 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Hip Replacement (Days), Completed Cases and Wait List Queue Trends



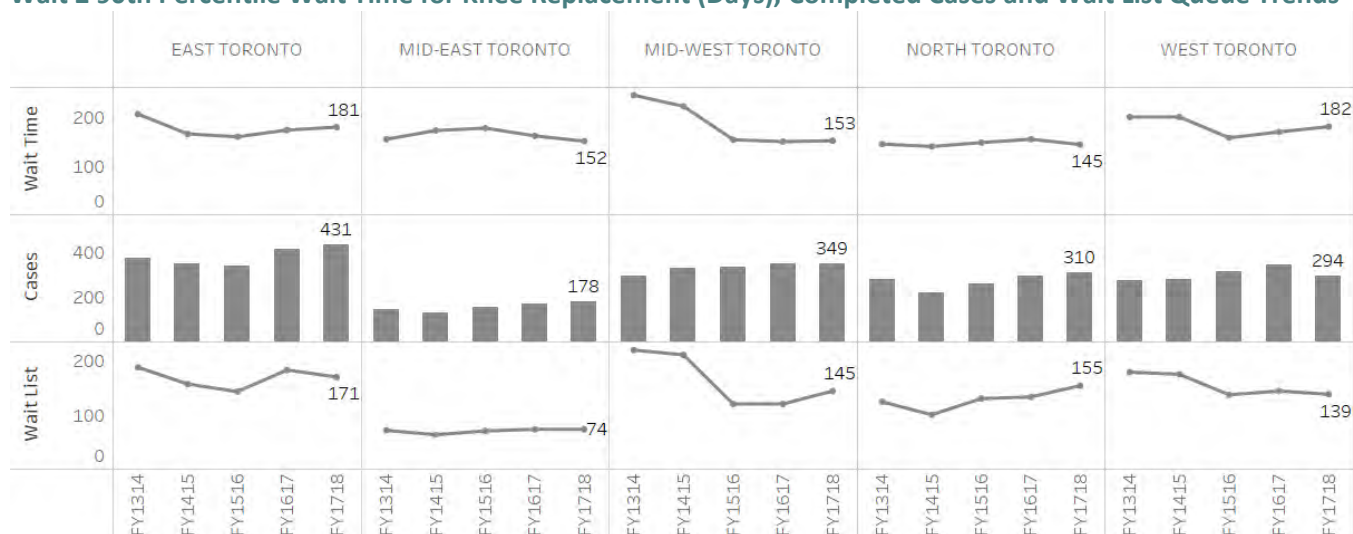
- Toronto Central LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 138 days to 185 days.

## Knee Replacement

- There were 3,608 knee replacement surgeries completed in FY 2017-18; 181 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 164 days, 1 day shorter than the previous fiscal.
- In 2017/18, hospitals in the Toronto Central LHIN had the 2<sup>nd</sup> shortest wait time for knee replacement surgery.
- The wait list queue at the start of FY 2017-18 was 1,360 patients; 4 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Knee Replacement (Days), Completed Cases and Wait List Queue Trends



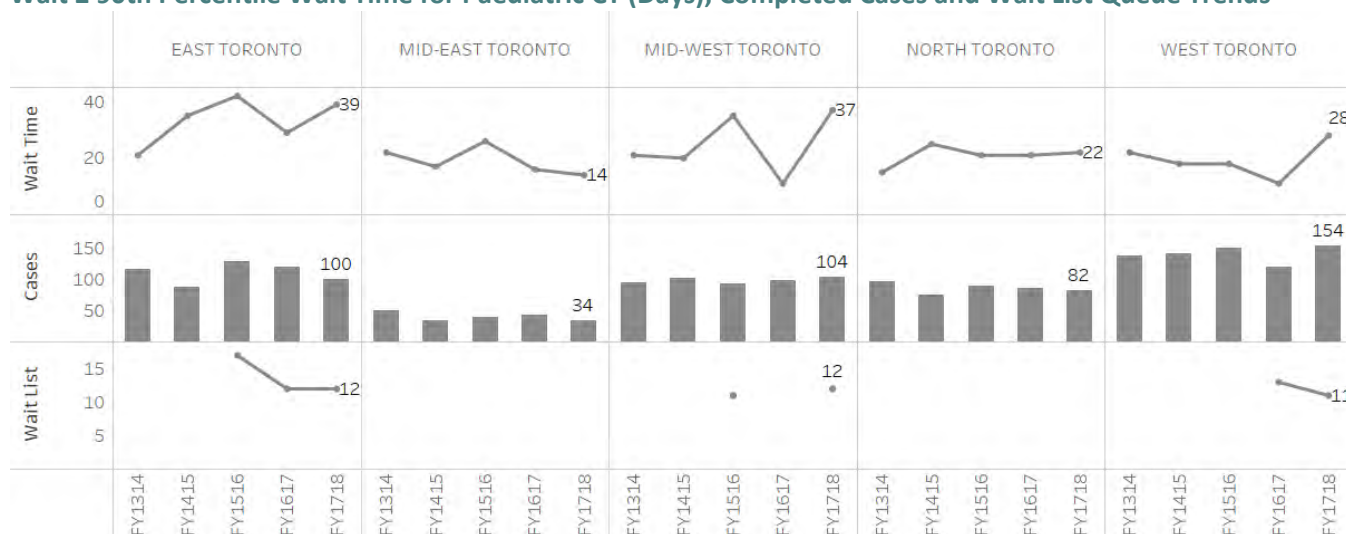
- Toronto Central LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 145 days to 182 days.

## Paediatric CT

- There were 1,543 paediatric CT scans completed in FY 2017-18; 193 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 23 days, 8 days longer than the previous fiscal.
- In 2017/18, hospitals in the Toronto Central LHIN had the 3<sup>rd</sup> shortest wait time for paediatric CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 208 patients; 13 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Paediatric CT (Days), Completed Cases and Wait List Queue Trends



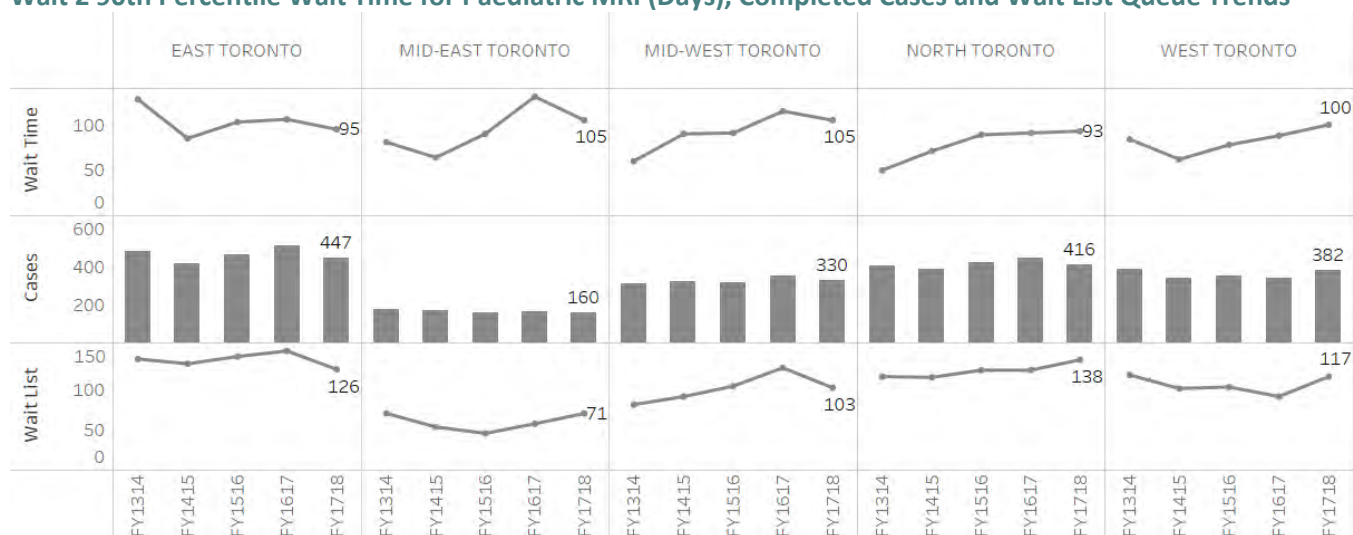
- Toronto Central LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 14 days to 39 days.

## Paediatric MRI

- There were 6,267 paediatric MRI scans completed in FY 2017-18; 577 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 125 days and the **longest** of all reporting LHINs, 10 days longer than the previous fiscal.
- In 2017/18, hospitals in the Toronto Central LHIN had the 2<sup>nd</sup> longest wait time for paediatric MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 3,490 patients; 69 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Paediatric MRI (Days), Completed Cases and Wait List Queue Trends



- Toronto Central LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 93 days to 105 days.

## Oncology and Dialysis

### Ambulatory Oncology Utilization

- In 2016/17, there were 267,715 ambulatory oncology visits to hospital(s) in Toronto Central LHIN.
- Since 2014/15, visits in Ontario have increased by 9%. The number of visits to Toronto Central LHIN hospitals increased by 6% and visits for Toronto Central LHIN residents have increased by 7%.
- Ambulatory oncology visits per 1,000 population for residents of Toronto Central LHIN is 64.1 (Ontario - 75.7). The rate is among the 4 lowest visit rates in the province.
- Oncology visits per 1,000 population for age group 0-17 years is 5.9 (Ontario - 5.0). The rate is among the 4 highest visit rates in the province for this age group.
- The visit rates for age group 65-79 years (226.7 vs. Ontario - 255.4) and age group 80+ years is (138.7 vs. Ontario - 191.6) are among the 4 lowest visit rates in the province in these age groups.
- At sub-region level,
  - **Mid-West Toronto** visit rate is 10.9 (Ontario - 5.0) for age group 0-17 years and **East Toronto** visit rate is 20.2 for age group 18-44 years (Ontario - 15.9). These rates are among the 8 highest visit rates in Ontario for their respective age groups.
  - Age group 80+ years, **West Toronto** sub-region (113.4) and **Mid-West Toronto** (120.4) are among the 8 lowest visit rates for the age group. (Ontario - 191.6).
- 6% of ambulatory oncology visits by Toronto Central LHIN residents were to hospitals outside of Toronto Central LHIN.
- 71% of ambulatory oncology visits to Toronto Central LHIN hospitals were by non-Toronto Central LHIN residents. The largest portion of non-Toronto Central LHIN visits come from Central LHIN residents.

Ambulatory Oncology	Toronto Central	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory oncology visits	267,715	1,059,358	Highest	Increase	
% Inflow oncology visits	71.0%				
<b>LHIN of patient</b>					
Ambulatory oncology visits	82,362	1,057,888		Increase	10,643 -20,327
% Outflow oncology visits	5.8%				
Visits per 1,000 population	64.1	75.7	2nd lowest	Increase	58.1 -68.6
Visit rate/1,000 population age 0-17 years	5.9	5.0	2nd highest		4.2 -10.9
Visit rate/1,000 population age 18-44 years	15.9	15.9			12.6 -20.2
Visit rate/1,000 population age 45-64 years	100.0	106.7			93.8 -119.8
Visit rate/1,000 population age 65-79 years	226.7	255.4	3rd lowest		211.5 -241.1
Visit rate/1,000 population age 80+ years	138.7	191.6	Lowest		113.4 -164.1



Ambulatory Oncology - Sub-Region	Toronto Central	West Toronto	Mid-West Toronto	North Toronto	Mid-East Toronto	East Toronto
<b>LHIN of hospital</b>						
Ambulatory oncology visits	267,715					
% Inflow oncology visits	71.0%					
<b>LHIN of patient</b>						
Ambulatory oncology visits~	82,362	16,294	19,716	15,387	10,643	20,327
% Outflow oncology visits	5.8%	13.3%	3.4%	5.5%	1.9%	4.3%
Visits per 1,000 population	64.1	62.7	58.1	68.6	67.0	67.3
Visit rate/1,000 population age 0-17 years	5.9	4.2	10.9	5.4	-	5.9
Visit rate/1,000 population age 18-44 years	15.9	14.7	12.6	16.8	17.7	20.2
Visit rate/1,000 population age 45-64 years	100.0	93.8	97.2	96.8	119.8	100.0
Visit rate/1,000 population age 65-79 years	226.7	223.2	216.0	238.4	211.5	241.1
Visit rate/1,000 population age 80+ years	138.7	113.4	120.4	164.1	145.5	157.1

### Ambulatory Dialysis Utilization

- In 2016/17, there were 189,359 ambulatory dialysis visits to hospital(s) in Toronto Central LHIN.
- Since 2014/15, visits in Ontario have increased by 3%. The number of visits to Toronto Central LHIN hospitals increased by 5% and visits for Toronto Central LHIN residents increased by 5%.
- The rate of ambulatory dialysis visits per 1,000 population for residents of Toronto Central LHIN is 90.4 (Ontario - 90.4).
- Dialysis visits per 1,000 population for age group 0-17 years is 2.0 (Ontario - 1.2), for age group 45-64 years is 130.7 (Ontario - 105.3) and for age group 80+ years is 335.7 (Ontario - 426.7). These rates are among the 4 highest visit rates in the province for their respective age groups.
  - Residents in age group 18-44 years living in [North Toronto](#) sub-region (7.6) have the lowest visit rates in Ontario (21.8) compared to other sub-regions.
- 17% of ambulatory dialysis visits by Toronto Central LHIN residents were to hospitals outside of Toronto Central LHIN.
- 49% of ambulatory dialysis visits to Toronto Central LHIN hospitals were by non-Toronto Central LHIN residents. The largest portion of non-Toronto Central LHIN visits come from Central LHIN residents.

*Note: Ambulatory dialysis visit volumes for residents in age group 0-17 are low to none across all sub-regions. Caution should be used when interpreting visit rates in this age group.*

Ambulatory Dialysis	Toronto Central	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory dialysis visits	189,359	1,269,794	Highest	Increase	
% Inflow dialysis visits	48.9%				
<b>LHIN of patient</b>					
Ambulatory dialysis visits	116,098	1,264,676		Increase	13,731 -33,967
% Outflow dialysis visits	16.6%				
Visits per 1,000 population	90.4	90.4		Increase	61.2 -112.4
Visit rate/1,000 population age 0-17 years	2.0	1.2	3rd highest		0.0 -7.4
Visit rate/1,000 population age 18-44 years	19.0	21.8			7.6 -31.6
Visit rate/1,000 population age 45-64 years	130.7	105.3	3rd highest		79.5 -166.7
Visit rate/1,000 population age 65-79 years	306.8	285.3			197.0 -406.9
Visit rate/1,000 population age 80+ years	335.7	426.7	3rd lowest		267.0 -460.4

Ambulatory Dialysis - Sub-Region+A20:G27	Toronto Central	West Toronto	Mid-West Toronto	North Toronto	Mid-East Toronto	East Toronto
<b>LHIN of hospital</b>						
Ambulatory dialysis visits	189,359					
% Inflow dialysis visits	48.9%					
<b>LHIN of patient</b>						
Ambulatory dialysis visits~	116,098	24,634	28,185	13,731	15,581	33,967
% Outflow dialysis visits	16.6%	20.5%	13.0%	16.9%	1.9%	23.4%
Visits per 1,000 population	90.4	94.8	83.0	61.2	98.1	112.4
Visit rate/1,000 population age 0-17 years	2.0	0.6	0.0	0.0	7.4	4.1
Visit rate/1,000 population age 18-44 years	19.0	31.6	18.7	7.6	9.8	23.1
Visit rate/1,000 population age 45-64 years	130.7	130.4	124.3	79.5	166.7	154.5
Visit rate/1,000 population age 65-79 years	306.8	278.1	306.8	197.0	334.2	406.9
Visit rate/1,000 population age 80+ years	335.7	313.3	288.6	267.0	402.3	460.4

\*Ranking: Top or bottom 4 ranking in the province, compared to other LHINs.

^ Trend: "Increase/decrease" when there is a change more than 1%, otherwise, "stable"

~ There are some records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables with the LHIN name but as SR unassigned.

## Home Care

### Home Care Patient Referrals

- In 2017/18, there were 53,573 active home care patient referrals in the Toronto Central LHIN.
  - The [Mid-West Toronto](#) sub-region had the largest proportion of Toronto Central LHIN patient referrals at 12,056.

### Active Patient Referrals 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
East Toronto	10,112	10,289	10,829	
Mid-East Toronto	5,587	5,838	6,095	
Mid-West Toronto	10,976	11,450	12,056	
North Toronto	8,332	8,682	9,399	
West Toronto	8,571	9,137	9,885	
Out of LHIN Region	2,437	2,613	3,731	
Unknown Region	3,539	2,707	1,578	
TC Total	49,554	50,716	53,573	

\*Rank based on 2017/18 active patient referrals

### Home Care Referral Rate

- In 2017/18, Toronto Central LHIN's utilization rate was lower than Ontario's (40.4 compared to 48.2).
  - Within the LHIN, the utilization rate ranged from 35.5 referrals per 1,000 in [Mid-West Toronto](#) to 41.9 in [North Toronto](#).

### Referrals (per 1,000 population) 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
East Toronto	34.2	34.1	35.8	
Mid-East Toronto	36.0	36.8	38.4	
Mid-West Toronto	33.1	33.7	35.5	
North Toronto	37.9	38.7	41.9	
West Toronto	33.7	35.2	38.0	
TC Total	39.4	39.5	40.4	

\*Rank based on 2017/18 utilization rates

### Home Care Services

- In Toronto Central LHIN, there were 999,917 home care visits and 3,638,209 service hours in 2017/18.
- The rate of home care visits was 753.7 per 1,000 population and the rate of service hours was 2,742.4 per 1,000 population.
- The following sub-regions had among the eight highest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - **Mid-West Toronto** had the 2<sup>nd</sup> highest rate of personal support hours.
  - **Mid-West Toronto** had the 4<sup>th</sup> highest rate of total hours.
  - **North Toronto** had the 5<sup>th</sup> highest rate of physiotherapy visits.
  - **North Toronto** had the 3<sup>rd</sup> highest rate of speech language therapy visits.
- The following sub-regions had among the eight lowest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - **Mid-East Toronto** had the 6<sup>th</sup> lowest rate of speech language therapy visits.
- Between 2014/15 and 2017/18 there was an increase in total visits of 5.3% and an increase in total hours of 7.5% in Toronto Central LHIN. During this period occupational therapy visits increased by 13.2%, speech language pathology visits increased by 11.2% and case management visits increased by 24.5%.
- Between 2014/15 and 2017/18 physiotherapy visit rate decreased by 15.2% and case management visit rate increased by 17.0%.

## Summary of Home Care Service by Type, Toronto Central LHIN, 2017/18

	Toronto Central LHIN Residents	Ontario Residents*	Comments	LHIN % Change 2014/15 to 2017/18	Range across TC sub-regions**
<b>Service Visits</b>					
<b>All Visits†</b>	999,917	11,528,751		5.3%	135,243-253,180
Nursing Visit	632,397	7,539,458		2.2%	89,761-165,612
Physiotherapy	81,809	738,685		-9.7%	6,888-21,502
Occupational Therapy	55,470	615,215		13.2%	7,133-13,160
Social Work	2,542	56,973		-9.7%	295-676
Nutrition and Dietetic	2,991	47,949		27.8%	375-716
Speech Language Pathology	30,932	273,735	2 <sup>nd</sup> highest	11.2%	1,781-10,045
Case Management	192,115	2,211,107		24.5%	24,334-45,489
<b>Service Hours</b>					
<b>All Hours</b>	3,638,209	34,396,919		7.5%	411,245-1,123,353
Nursing Shift	164,316	2,366,020		3.0%	12,182-41,194
Personal Support Work and Homemaking	3,402,581	31,319,568		5.5%	393,720-1,063,982
Respite	71,312	711,331		n/a	5,343-29,608
<b>Service Visits per 1,000 population</b>					
<b>All Visits per 1,000 population †</b>	753.7	810.2		-1.1%	697.6-851.8
Nursing Visit	476.7	529.8		-4.0%	400.2-593.1
Physiotherapy	61.7	51.9		-15.2%	43.4-95.9
Occupational Therapy	41.8	43.2		6.4%	38.8-56.4
Social Work	1.9	4.0		-15.2%	1.7-2.6
Nutrition and Dietetic	2.3	3.4		20.1%	2.1-2.6
Speech Language Pathology	23.3	19.2		4.5%	11.2-44.8
Case Management	144.8	155.4		17.0%	130.8-153.3
<b>Service Hours per 1,000 population</b>					
<b>All Hours</b>	2,742.4	2,417.3		1.0%	2,247.8-3,309.7
Nursing Shift	123.9	166.3		-3.3%	76.7-183.7
Personal Support Work and Homemaking	2,564.8	2,201.0		-0.8%	2,063.1-3,134.8
Respite	53.8	50.0		n/a	26.0-87.2

\*Not all LHINs offer the same services or report case management services in the same manner.

\*\*Service rates per 1,000 population are calculated using 2017/18 service levels divided by 2016 population estimates from the Ministry of Finance. Typically 2017 population estimates would be used but they were not available at the sub-region level at time of calculation.

†Includes visits for respiratory, psychology, and 'other' service types (not shown), which are not consistently reported/available in all LHINs.

n/a – not applicable due to significant changes in funding and recording

## Palliative Care

### Services Received at Home by Palliative Patients FY 2016/2017

	Provincial Ranking	LHIN	Range Across TC sub-regions
Percent of patients who received palliative home visits(home servicers or physician) in the last 90 days of life	6	34%	29% to 41%
Percent of patients who received palliative home servicers in the last 90 days of life	5	22%	19% to 24%
Percent of patients who had physician home visits in the last 90 days of life	10	31%	27% to 39%
Percent of patients who receive palliative home services who died in hospital	10	25%	16% to 35%
Percent of palliative care patients discharged home from hospital with the discharge status "Home with Support"	5	84%	78% to 90%
Mean days spent at home/residence in last 6 months of life	1	155 days	154 to 156 days

*†Ranking in the province, compared to other LHINs.*

### Interpretation

- In 2016/2017, 34% of patients in Toronto Central LHIN received palliative home visits in the last 90 days of life, which is slightly lower than the provincial value of 36%.
  - Within the Toronto Central LHIN, the [Mid-East Toronto](#) sub-region reported 29% of patients received palliative home visits in the last 90 days of life, where the [North Toronto](#) sub-region had the highest percentage at 41%.
- In 2016/2017, the percent of patients in Toronto Central LHIN who received palliative home servicer visits in the last 90 days of life was lower than the province (22% vs 25%, respectively).
  - [North Toronto](#) sub-region reported 24% patients received home servicer visits in the last 90 days of life, which were the highest in the Toronto Central LHIN though still below the provincial estimate. [Mid-East Toronto](#) reports the lowest percentage among the sub-regions at 19%.
- In the Toronto Central LHIN, the percentage of patients who received physician home visits in the last 90 days of life was 31%, 3% above the provincial percentage (28%). [North Toronto](#) sub-region reported the highest percentage at 39%. Milton reported the lowest percentage of patients who received physician home visit in the last 90 days of life at 27%.
- Across Ontario, Toronto Central LHIN reported that 25% of patients who received palliative home services who died in hospital, which matches the provincial estimate.
  - There is notable variation of percentages of patients who received palliative care who died in hospital across Toronto Central sub-regions. The [East Toronto](#) sub-region has the lowest percentage of palliative patients dying in hospital at 16%.
- Across LHINs, Toronto Central reports that 84% of palliative care patients discharged home with “Home with Supports” status in 2016/2017, slightly lower than the provincial 85%.
  - Within Toronto Central, the sub-regions vary from 77% in [Mid-East Toronto](#) to 90% in [North Toronto](#) regarding palliative patients discharged with “Home with Supports” status.

- Toronto Central LHIN's mean number of days at home among palliative patients in the last 6 months across all LHINs was 155 days, which was the lowest among all LHINs, and 6 days lower than the provincial value.
  - Toronto Central sub-regions are very close in mean number of days that palliative patients spend at home in their last 6 months, ranging from 154 days in [West Toronto](#) and [North Toronto](#) to 156 days in [East Toronto](#) and [Mid-East Toronto](#).

#### Palliative Hospital System Measures, Toronto Central (FY 2016/17)

	Provincial Ranking	LHIN	Range Across the sub-regions
Percent of patients who had one or more unplanned ED visits in the last 30 days of life	8	55%	51% - 57%
Percent of patients who had two or more unplanned ED visits in the last 30 days of life	3	13%	10% - 14%
Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days	4	19%	17% - 21%
Percent of people who die in hospital (all hospital settings and acute only)	12	57%	54% - 61%
Percent of people who die in acute hospital	8	45%	40% - 49%
Percent of patients who had two or more acute inpatient admissions in the last 30 days of life	8	6%	5% - 6%

#### LHIN Comparison

- Toronto Central LHIN was **significantly higher** than the province in percent of people who died in hospital (all hospital settings and acute only). It was **significantly lower** than the province in percent of patients who had two or more unplanned ED visits in the last 30 days of life.
  - For percent of patients who had one or more unplanned ED visits in the last 30 days of life, [Mid-West Toronto](#) was **significantly higher** than the province.
  - For percent of patients who had two or more unplanned ED visits in the last 30 days of life, [West Toronto](#) and [North Toronto](#) sub-regions were **significantly lower** than the province.
  - For percent of people who died in hospital (all hospital settings and acute only), the following sub-regions were **significantly higher** than the province: [West Toronto](#), [Mid-West Toronto](#), [North Toronto](#), and [East Toronto](#).
  - For percent of people who died in acute hospital, [North Toronto](#) was **significantly lower** than the province. [West Toronto](#) and [Mid-West Toronto](#) were **significantly higher** than the province.

#### Change Over Time

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of -1% was observed across the Toronto Central LHIN ranking 6th provincially.

- Across sub-regions, **Mid-West Toronto** (0%) and **Mid-East Toronto** (-2%) were observed highest and lowest, respectively.
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of -1% was observed across the Toronto Central LHIN ranking 12th provincially.
  - Across sub-regions, **Mid-East Toronto** (3%) and **Mid-West Toronto** (-2%) were observed highest and lowest, respectively.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, a mean annual growth rate of -1% was observed across the Toronto Central LHIN ranking 8th provincially.
  - Across sub-regions, **North Toronto** (12%) and **Mid-West Toronto** (-8%) were observed highest and lowest, respectively.
- For percent of people who die in hospital (all hospital settings and acute only), a mean annual growth rate of -1% was observed across the Toronto Central LHIN ranking 4th provincially.
  - Across sub-regions, **North Toronto** (-1%) and **Mid-East Toronto** (-2%) were observed highest and lowest, respectively.
- For percent of people who die in acute hospital, a mean annual growth rate of -2% was observed across the Toronto Central LHIN ranking 7th provincially.
  - Across sub-regions, **West Toronto** (-1%) and **East Toronto** (-4%) were observed highest and lowest, respectively.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, a mean annual growth rate of 0% was observed across the Toronto Central LHIN ranking 8th provincially.
  - Across sub-regions, **West Toronto** (3%) and **Mid-West Toronto** (-4%) were observed highest and lowest, respectively.



## Emergency Department

### Emergency Department Utilization

- In 2016/17, there were 576,030 ED visits to Toronto Central LHIN hospitals, an increase of 7.3% from 2013/14. In the same time-period, the number of ED visits in the province increased by 6.5%.
- Toronto Central's crude ED visit rate of 337.7 ED visits per 1,000 population was 3<sup>rd</sup> lowest in the province, well below the provincial rate (442.2). This represented a 2.1% increase in crude visit rate in the LHIN from 2013/14 during which time the provincial crude visit rate climbed by 3.0%.
- Age adjusted ED visit rates per 1,000 population were highest for seniors 80+ at 678 visits per 1,000 population, followed by seniors aged 65-79 (423 visits / 1,000 population), adults aged 45-64 years (319 visits per 1,000 population), children aged 0-17 (311 visits per 1,000 population) while adults aged 18-44 years had the lowest usage rate in LHIN at 301 visits per 1,000 population, or less than half of the highest user age group.
  - **North Toronto** residents had the lowest ED visit rate of Toronto Central's 5 sub-regions, at 256 visits per 1000 population, the 3<sup>rd</sup> lowest sub-region in the province.
  - **West Toronto** sub-region had the highest crude ED visit rate in the LHIN at 391 visits per 1,000 population.
- Overall, all 5 of Toronto Central's 5 sub-regions had crude ED visit rates below the provincial value.
- Between 2013/14 and 2016/17 the number of Toronto Central LHIN residents visiting the ED with lower acuity levels (CTAS IV and V) increased 22.1% to 116,929 visits. During this same time-period, visits by Ontario residents with CTAS IV and V declined 2.2%.
- Between 2013/14 and 2016/17 the number of visits with CTAS III increased by 1.4% and CTAS I & II increased by 4.1%, while provincially these numbers increased by 9.4% and 15.8% respectively.
- Overall, Toronto Central LHIN ranked 3<sup>rd</sup> lowest in the province in proportion of ED visits by residents that were lower acuity (27.0% for Toronto Central, and 33.5% for the province).
  - 5 out of 5 of Toronto Central's sub-regions had a lower proportion of ED visits with lower acuity (CTAS IV and V) than the province.
  - **North Toronto** had the lowest proportion of ED visits with lower acuity of the LHIN's 5 sub-regions, at 23.7%, while **West Toronto** had the highest at 29.9%.
- The most common causes for ED visits by Toronto Central LHIN residents were diseases or disorders of the digestive system, diseases or disorders of the skin & breast, and other disease or disorder cardiac system and accounted for 10.0%, 7.1%, and 5.7% of ED visits by Toronto Central LHIN residents respectively.
- Follow-up examinations and other non-emergent conditions ranked 8<sup>th</sup> as a cause of ED visits and accounted for 4.9% of ED visits by Toronto Central LHIN residents.
- 19.7% of the patients who visited ED in Toronto Central LHIN hospitals arrived via ambulance in FY16/17, as compared to 15.6% for the province.
  - The proportion of ED visits that arrived by ambulance ranged from a low of 18.1% in **West Toronto** sub-region to a high of 21.9% in **Mid-East Toronto**.
- 14.1% of the patients who visited ED in Toronto Central LHIN hospitals were admitted in FY16/17, as compared to 9.8% for the province.
  - The proportion of ED visits that resulted in a patient being admitted to hospital ranged from a low of 11.3% in **Mid-West Toronto** sub-region to a high of 14.0% in **North Toronto**, the 2<sup>nd</sup> highest admission rate for a sub-region in the province.
- 4.1% of the patients who visited ED in Toronto Central LHIN hospitals left without completing treatment in FY16/17, as compared to 3.9% for the province. Toronto Central ranked 6<sup>th</sup> in the province in visits that left without completing treatment.

- 37.6% of ED visits to Toronto Central LHIN hospitals were by patients who did not reside in Toronto Central LHIN (inflow). This compares to 17.2% of ED visits by Toronto Central LHIN residents that were accessed in other LHINs (outflow).

#### Top 10 Reasons for Emergency Department Visits by LHIN, 2016/17

Leading CACS groups, by LHIN of patient	Toronto Central	
	#	% of total visits
(B128) Disease or Disorder Digestive System	43,566	10.0%
(B132) Disease or Disorder Skin & Breast	30,877	7.1%
(B122) Other Disease or Disorder Cardiac System	25,338	5.8%
(B005) Other Condition with Acute Admission/Transfer	24,877	5.7%
(B136) Disease or Disorder Musculoskeletal and Connective Tissue	24,629	5.7%
(B112) Disease or Disorder Ear, Nose or Throat	24,543	5.7%
(B180) Contusion, Dislocation, Nerve & Other Soft Tissue Injury	22,066	5.1%
(B187) Follow-up Examination and Other Non Emergent Condition	21,174	4.9%
(B188) Open Wound and Vascular Injury	19,713	4.5%
(B116) Disease or Disorder Respiratory System	17,041	3.9%

Measure—LHIN of Hospital	Toronto Central		Ontario	
	#	LHIN % change 2013/14- 2016/17	#	Ontario % change 2013/14- 2016/17
Visits	576,030	7.3%	6,312,121	6.5%
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	139,225	4.5%	1,284,741	15.9%
III (urgent)	292,494	0.4%	2,876,687	9.6%
IV & V (less urgent/non urgent)	142,820	28.8%	2,128,914	-2.0%
<b>% visits by CTAS level†</b>				
I & II (resuscitation/emergent)	24.2%		20.4%	
III (urgent)	50.8%		45.6%	
IV & V (less urgent/non urgent)	24.8%		33.7%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	19.7%		15.6%	
% of visits that were admitted	14.1%		9.8%	
% of visits that left without completing treatment	4.1%		3.9%	
<b>% Inflow visits</b>	37.6%			

Measure—LHIN of Patient	Toronto Central		Ontario	
	#	LHIN % change 2013/14- 2016/17	#	Ontario % change 2013/14- 2016/17
Visits	433,784	6.9%	6,183,151	6.4%
ED visit rate/1,000 population	337.7	2.1%	442.2	3.0%
<b>Age-specific ED visit rates per 1,000 population</b>				
ED visit rate, age 0-17 years	311		429	
ED visit rate, age 18-44 years	301		411	
ED visit rate, age 45-64 years	319		388	
ED visit rate, age 65-79 years	423		516	
ED visit rate, age 80+ years	678		913	
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	96,156	4.1%	1,265,237	15.8%
III (urgent)	219,970	1.4%	2,825,385	9.4%
IV & V (less urgent/non urgent)	116,929	22.1%	2,070,962	-2.2%
<b>% visits by CTAS level</b>				
I & II (resuscitation/emergent)	22.2%		20.5%	
III (urgent)	50.7%		45.7%	
IV & V (less urgent/non urgent)	27.0%		33.5%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	19.7%		15.8%	
% of visits that were admitted	12.0%		9.9%	
% of visits that left without completing treatment	3.8%		3.8%	
% Outflow visits	17.2%			

# ED Visit Utilization Summary, by sub-region of Patient Residence, 2016/17      Toronto Central LHIN

Sub-Region of Patient Residence	West Toronto	Mid-West Toronto	North Toronto	Mid-East Toronto	East Toronto	LHIN	Ontario
Visits	101,675	121,754	57,448	57,483	95,439	433,784	6,183,151
ED visit rate/1,000 population	391	359	256	362	316	337.7	442
% Outflow to other LHINs	27.3%	12.6%	26.3%	7.4%	12.5%	17.2%	
<b>Age-specific ED visit rates per 1,000 population</b>							
ED visit rate, age 0-17 years	356	361	232	338	289	311	429
ED visit rate, age 18-44 years	367	318	212	300	283	301	411
ED visit rate, age 45-64 years	363	342	225	390	289	319	388
ED visit rate, age 65-79 years	463	423	348	488	414	423	516
ED visit rate, age 80+ years	705	735	573	713	679	678	913
<b># visits by CTAS level</b>							
# CTAS Level I & II visits	19436	25898	14384	14513	21929	96,156	12715
# CTAS Level III visits	51631	63666	29385	26939	48355	219,970	20741
# CTAS Level IV & V visits	30423	31885	13608	15937	25081	116,929	13353
<b>% visits by CTAS level</b>							
I & II (resuscitation/emergent)	19.1%	21.3%	25.0%	25.2%	23.0%	22.2%	20.5%
III (urgent)	50.8%	52.3%	51.2%	46.9%	50.7%	50.7%	45.7%
IV & V (less urgent/non urgent)	29.9%	26.2%	23.7%	27.7%	26.3%	27.0%	33.5%
<b>Other visit characteristics</b>							
% of visits that arrived by ambulance	18.1%	18.9%	21.1%	21.9%	20.5%	19.7%	15.8%
% of visits that were admitted	11.6%	11.3%	14.0%	12.0%	12.1%	12.0%	9.9%
% of visits that left without completing treatment	3.1%	3.5%	3.5%	4.8%	4.3%	3.8%	3.8%

### Emergency Department Performance

- Overall ED volumes in Toronto Central LHIN increased from fiscal year 2013/14 (529,205) to 2017/18 (577,453).
- Ambulance offload times increased since fiscal year 2013/14, to 55 minutes in fiscal year 2017/18.
- ED Volumes - Non-Admitted Low Acuity increased from fiscal year 2013/14 to 131,210 in 2017/18 and volumes of ED admissions increased to 80,164 during the same timeframe.
- Time to inpatient Bed - 90th percentile increased since fiscal year 2013/14 to 21 hours in 2017/18.
- % Within Target of 8 Hrs – Admitted decreased from 35% in fiscal year 2013/14 to 28% in fiscal year 2017/18.
- Provincially, Toronto Central LHIN was ranked within the bottom four LHINs on the following measures: % of Consults with Consult Request to Arrival <= 2 Hrs, % with Time to PIA <= 2 Hours, % Within Target of 4 Hrs - Non-Admitted Low Acuity, % Within Target of 8 Hrs – Admitted, and % Within Target of 8 Hrs - Non-Admitted High Acuity.
- Toronto Central LHIN had the **highest** wait time (six hours) for Consult Request to Arrival - 90th Percentile of all LHINs in fiscal year 2017/18.
- Provincially, Toronto Central LHIN was ranked within the bottom for four LHINs on the following measures: Time to Disposition (All) - 90th Percentile, Time to Disposition for Admitted - 90th Percentile, Time to Disposition for Non-Admitted High Acuity - 90th Percentile, Time to Disposition for Non-Admitted Low Acuity - 90<sup>th</sup>, and Percentile Time to PIA - 90th percentile.

## Emergency department visits, Toronto Central LHIN

Measure	Fiscal Year					Range across sites, FY 17/18
	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	
All emergency department visits						
	529,20	541,00	560,86	565,08	577,45	51,610 - 98,177
ED Volumes (All)	5	6	1	8	3	
Ambulance Offload Time - 90th Percentile (mins)	43	51	47	51	55	10 - 78
Time to PIA - 90th percentile	3	3	3	3	3	2 - 5
% with Time to PIA <= 2 Hours	73%	74%	75%	75%	71%	53% - 90%
Consult Request to Arrival - 90th Percentile	5	5	5	5	6	3 - 8
% of Consults with Consult Request to Arrival <= 2 Hrs	64%	64%	63%	62%	59%	42% - 78%
Time to Disposition (All) - 90th Percentile	9	9	8	9	9	7 - 11
ED LOS - 90th Percentile	10	11	11	11	11	7 - 16
Non-admitted low acuity ED visits						
	107,27	115,62	130,66	137,05	131,21	7,620 - 28,608
ED Volumes - Non-Admitted Low Acuity	7	1	9	0	0	
% Within Target of 4 Hrs - Non-Admitted Low Acuity	85%	87%	86%	86%	85%	80% - 92%
Time to Disposition for Non-Admitted Low Acuity - 90th Percentile	5	5	5	5	5	5 - 6
ED LOS for Non-Admitted Low Acuity - 90th Percentile	5	4	5	5	5	4 - 5
Non-admitted high acuity ED visits						
	347,29	347,96	351,35	349,22	364,03	33,429 - 60,890
ED Volumes - Non-Admitted High Acuity	3	1	3	1	2	
% Within Target of 8 Hrs - Non-Admitted High Acuity	91%	91%	91%	91%	91%	83% - 95%
Time to Disposition for Non-Admitted High Acuity - 90th Percentile	8	8	8	8	8	7 - 10
ED LOS for Non-Admitted High Acuity - 90th Percentile	8	8	8	8	8	7 - 10
Admitted ED visits						
ED Volumes - Admitted	73,724	76,562	77,320	77,493	80,164	6,886 - 14,280
Admission Rate - CTAS 1	63%	62%	61%	63%	63%	54% - 74%
Admission Rate - CTAS 2	29%	29%	28%	28%	28%	21% - 38%
Admission Rate - CTAS 3	11%	11%	11%	12%	12%	6% - 17%
Admission Rate - CTAS 4	1%	1%	2%	2%	2%	1% - 4%
Admission Rate - CTAS 5	1%	1%	2%	2%	2%	0% - 2%
Time to Disposition for Admitted - 90th Percentile	13	13	12	13	13	9 - 14
ED LOS for Admitted - 90th Percentile	25	27	27	29	29	12 - 37
% Within Target of 8 Hrs - Admitted	35%	32%	31%	29%	28%	20% - 59%
Time to Inpatient Bed - 90th Percentile	16	18	18	21	21	5 - 28

## Acute Care

### Acute Care Utilization by Residents of the Toronto Central LHIN

#### Acute Separations

- In 2016/17, there were 82,369 acute separations (discharges), 455,685 acute days, and 558,295 total days (including acute and alternate level of care days) for Toronto Central LHIN residents.
- The acute separation rate for Toronto Central LHIN residents was 64 separations per 1,000 residents in 2016/17, 3rd lowest amongst LHINs.
  - Rates were the lowest for residents of the [North Toronto](#) sub-region and highest for residents of [West Toronto](#).
- From 2013/14 to 2016/17, the overall acute separation rate for Toronto Central LHIN residents declined by 1.6%.

#### Acute Days

- The rate of acute days for Toronto Central LHIN residents was 355 acute days per 1,000 residents in 2016/17.
  - Rates were the lowest for residents of the [North Toronto](#) sub-region (313 acute days per 1,000 residents) and highest for [West Toronto](#) (422 acute days per 1,000 residents) in 2016/17.

#### Mean Length of Stay

- The mean total length of stay (including acute days and days waiting for an alternate level of care) for Toronto Central LHIN residents was 6.8 days, while the mean acute length of stay was 5.5 days in 2016/17. These values are higher than Ontario for both total and acute length of stay.
  - Among Toronto Central sub-regions, [West Toronto](#) ranks in the highest 8 Ontario sub-regions in both mean acute and total lengths of stay – with values higher than Ontario.

#### HIG Weight

- The Ontario HBAM Inpatient Grouper (HIG) (Similar to CMG+) aggregates acute care separations with similar resource use and clinical characteristics based on most responsible diagnosis and/or principal intervention. The HIG weight is a relative cost value that reflects the resources consumed during each acute care stay. The mean HIG weight for Toronto Central LHIN residents increased from 1.56 2014/15 to 1.65 in 2016/17 – a change of 3.8%. The mean HIG weight for Toronto Central residents was 2nd highest amongst LHINs in 2016/17.
- The top 3 HIGs accounting for the highest proportion of acute care days for Toronto Central LHIN residents in 2016/17 were: 196-heart failure without coronary angiogram, 810-palliative care, and 138-viral/unspecified pneumonia.



## Acute Care Hospital Utilization (Excluding ALC) LHIN of Patient, Toronto Central LHIN, 2016/17

	Toronto Central LHIN Residents	Ontario Residents*	Rank among LHINs	Range across TC sub-regions
<b>Acute Care Measures</b>				
Total Population	1,284,522	13,982,984		158,767 – 339,409
Acute Separations	82,369	1,028,979		10,400 – 21,236
Acute Separation Rate per 1,000 Population	64	74	3 <sup>rd</sup> Highest	59 – 70
Acute Days	455,685	5,455,693		59,139 – 117,365
Acute Days Rate per 1,000 Population	355	390		313 – 422
Total Days	558,295	6,477,528		71,647 – 148,316
Total Days Rate per 1,000 Population	435	463		377 – 527
Mean Acute LOS	5.5	5.3	3 <sup>rd</sup> Lowest	5.1 – 6.1
Mean Total LOS	6.8	6.3	3 <sup>rd</sup> Lowest	5.9 – 7.6
Mean HIG Weight	1.65	1.55	2 <sup>nd</sup> Highest	—
<b>Leading HIGs (Acute Care Days)†</b>				
(196) Heart Failure w/o Coronary Angiogram	14,804	175,995		1,549 – 4,387
(810) Palliative Care	11,441	110,197		1,090 – 3,757
(138) Viral/Unspecified Pneumonia	9,622	119,810		1,068 – 2,772

\* Ontario residents exclude Out-of-province

† Leading HIGs include Out-of-province for Ontario Values

## Acute Care Utilization for Toronto Central LHIN Facilities

- There were 159,315 acute separations, 917,167 acute days, and 1,050,391 total days at Toronto Central LHIN hospitals in 2016/17. Toronto Central LHIN had the highest separations, acute days and total days of all the LHINs.

## Separations

- Separations increased by 2.0% between 2013/14 and 2016/17. During this same period, for Ontario hospitals overall, separations increased by 3.8%.

## Acute Days

- Acute days increased by 1.8% between 2013/14 and 2016/17. Acute days increased by 2.2%, for all Ontario hospitals overall, during this same period.
- Mean acute length of stay for 2016/17 at hospitals in the Toronto Central LHIN was 5.8 days. This is the highest of all the LHINs and higher than the provincial result of 5.3 days.

### Total Days

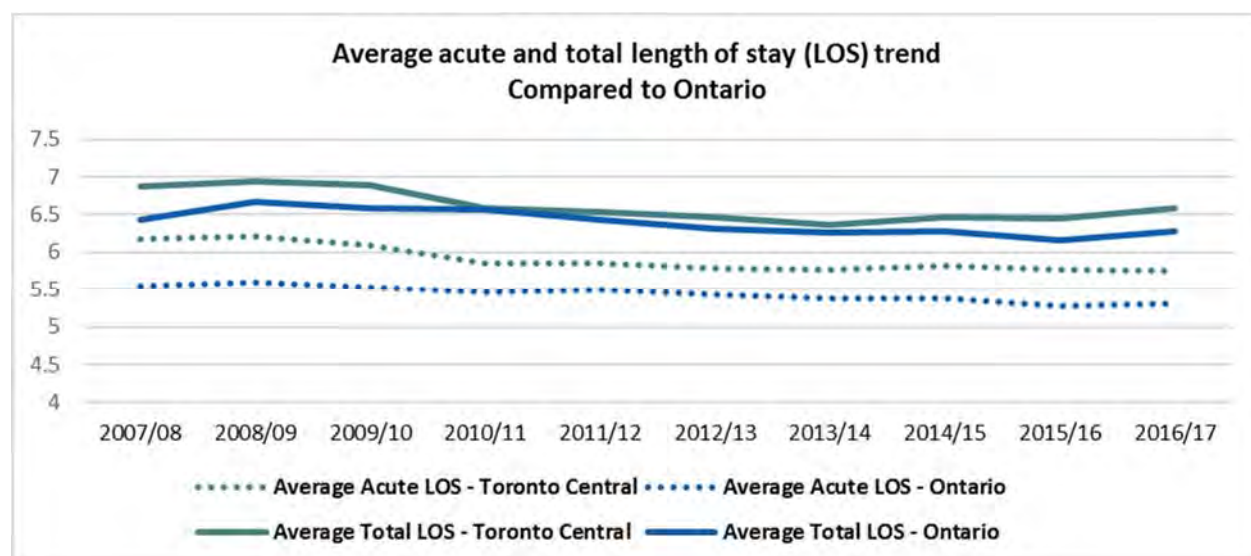
- Total days increased by 5.5% between 2013/14 and 2016/17. Overall Ontario hospitals had an increase of 4.2% of total days during this period.
- Mean total length of stay for this LHIN was 6.6 days. Higher than mean total length of stay for Ontario, which was 6.3 days.

### HBAM Group (HIG) Weight

- Mean HIG weight for Toronto Central LHIN hospitals in 2016/17 of 1.94 was higher than the provincial value of 1.55 and the highest among all LHINs.

### Acute care hospital utilization, Toronto Central LHIN, 2016/17

Measure	Toronto Central LHIN	Ontario hospitals	Comments	LHIN % change 2013/14 - 2016/17	Range within LHINs
Acute separations	159,315	1,041,308		2.0%	26,295 - 159,315
Total days	1,050,391	6,542,800		5.5%	193,259 - 1,050,391
Mean total LOS	6.6	6.3			5.0 - 7.3
Acute days	917,167	5,518,912		1.8%	142,875 - 917,167
Mean acute LOS	5.8	5.3	Highest		4.5 - 5.8
Mean HIG weight	1.94	1.55	Highest		1.23 - 1.94



### Acute Care Inflow/Outflow

#### Inflow

- 55.0% of hospital separations from Toronto Central LHIN hospitals were by non-Toronto Central LHIN residents
- This is the **highest** proportion of inflow among all LHINs

#### Outflow

- 13.0% of separations for Toronto Central LHIN residents were from hospitals outside Toronto Central LHIN

### Inflow - Outflow, Toronto Central LHIN, 2016/17

Measure	Toronto Central LHIN	Ontario Hospitals	Comments	Range across TC sub-regions
Acute separations, LHIN of hospital	159,315	1,041,322	Highest	9,773 – 19,239
Acute separations, LHIN of patient	82,369	1,041,322		10,400 – 21,236
% inflow	55.0%		Highest	NA
% outflow	13.0%			6.0% - 19.1%

## Post-Acute Care

### Inpatient Rehabilitation Utilization

#### Rehabilitation Admissions

- The number of total rehabilitation admissions at the LHIN hospitals, including both general admissions and special admissions, was 10,033 in FY 16/17, an increase of 56.1% from FY 13/14.
  - The number of general rehabilitation admissions was 8,478 in FY 16/17, an increase of 72.5% from FY 13/14.
  - The number of general rehabilitation admissions was 1,555 in FY 16/17, an increase of 2.9% from FY 13/14.
- The number of total rehabilitation admissions of the LHIN residents, was 3,641 in FY 16/17, an increase of 8.8% from FY 13/14.

#### Active Cases and Discharges

- In FY 16/17, the number of active cases was 11,825 while the number of discharges was 10,044.

#### Inpatient Days

- The number of total inpatient days was 256,125 in FY 16/17.
- The mean length of stay at the LHIN hospitals was 25.5 days.
- By sub-region of patient residence:
  - **Mid-West Toronto** residents had the longest length of stay at 26.9 days.
  - **West Toronto** and **North Toronto** residents had the longest length of stay at 25 days (tied).

#### Admission Rate

- The number of admissions per 100,000 adults (age 18+) was 341.6 in FY 16/17, an increase of 3.0% from FY 13/14.
  - Age group 18-44 years had the lowest admission rate, 33.4 per 100,000 population.
  - Age group 80+ years had the highest admission rate, 2,529.6 per 100,000 population.
- By sub-region of patient residence:
  - **North Toronto** residents had the highest admission rate at 419.2.
  - **Mid-West Toronto** residents had the lowest admission rate at 278.4.

#### Active Case Rate

- The number of active cases per 1,000 population age 18+ was 415.4.

#### Discharge Rate

- The number of discharges per 1,000 population age 18+ was 340.6.

#### Leading Rehabilitation Group

- The 5 leading rehabilitation groups that contributed to the total admissions in FY 16/17 were:
  - Other disabilities accounted for 902 admissions or 24.8% of the total admissions.
  - Fracture of lower extremity accounted for 651 admissions or 17.9 % of the total admissions.
  - Replacement of lower extremity accounted for 542 admissions or 14.9% of the total admissions.
  - Stroke accounted for 428 admissions or 11.8% of the total admissions.
  - Other orthopaedic accounted for 240 admissions or 6.6% of the total admissions.

#### Outflow

- Hospitals outside the LHIN accounted for 3.7% of the total rehabilitation admissions of the LHIN residents
- By sub-region of patient residence:
  - **West Toronto** residents had the highest rate of admission to hospitals outside the LHIN at 11.9%.
  - **Mid-East Toronto** residents had the lowest rate of admission to hospitals outside the LHIN at 1.0%.

#### Inflow

- 65.0% of the rehabilitation admissions at the hospitals in the LHIN were residents from outside Toronto Central.

Rehab Admissions, Active Cases, Discharges and Days*	LHIN	Ontario	Ranking Among LHINs**	% Change 2013/14-2016/17***	Range across sub-region
<b>LHIN of hospital</b>					
General admissions	8,478	28,691		72.5%	
Special admissions	1,555	4,444		2.9%	
Total admissions	10,033	33,135		56.1%	
% Inflow inpatient rehab admissions	65.0%				
Active Cases	11,825	43,329			
Discharges	10,044	33,133			
Total Days (discharged cases only)	256,125	839,228			
Mean Length of Stay (discharged cases only)	25.5	25.3			
<b>LHIN of patient</b>					
Total population age 18+	1,065,952	11,287,810		5.2%	
Total admissions	3,641	33,016		8.8%	497-938
Admissions/100,000 population age 18+	341.6	292.5	3 <sup>rd</sup> highest	3.0%	278.4-419.2
Admissions/100,000 population age 18-44 years	33.4	30.4	4 <sup>th</sup> highest		23.3-42.7
Admissions/100,000 population age 45-64 years	200.9	150.9	2 <sup>nd</sup> highest		139.9-310.0
Admissions/100,000 population age 65-79 years	939.8	689.3	2 <sup>nd</sup> highest		773.5-1,111.0
Admissions/100,000 population age 80+ years	2,529.6	2,311.8			1,787.5-3,097.1
% Outflow inpatient rehabilitation admissions	3.7%				1.0%-11.9%
Active cases per 1,000 population age 18+	415.4	382.3			346.4-499.3
Discharges per 1,000 population age 18+	340.6	292.5	3 <sup>rd</sup> highest		279.1-415.3
Mean Length of Stay (discharged cases only)	25.9	25.3			25.0-26.9

	West Toronto	Mid- West Toronto	North Toronto	Mid- East Toronto	East Toronto
Measure					
Rehab Admissions	629	824	753	497	938
Rehab Admission Rate per 100,000 Population	295.6	278.4	419.2	357.0	393.4
Rehab Active Cases	813	1,025	897	580	1,113
Rehab Active Case Rate per 100,000 Population	382.1	346.4	499.3	416.7	466.9
Rehab Discharges	627	826	746	492	940
Rehab Discharge Rate per 100,000 Population	294.7	279.1	415.3	353.4	394.3
Total Inpatient Days (discharged cases only)	15,705	22,214	18,657	12,829	24,504
Mean LOS (discharged cases only)	25.0	26.9	25.0	26.1	26.1
<b>Age specific admission rates per 100,000 population</b>					
18-44 years	39.6	23.3	26.5	42.7	41.9
45-64 years	187.1	208.4	139.9	310.0	193.1
65-79 years	773.5	804.6	1,022.0	1,081.6	1,111.0
80+ years	1,787.5	2,203.8	2,947.2	2,879.9	3,097.1

Rehab Admissions, by Leading Rehabilitation Groups*	LHIN	% of Total Rehab Admission
LHIN of Patient		
18-Other disabilities	902	24.8%
10-Fracture of lower extremity	651	17.9%
11-Replacement of lower extremity	542	14.9%
01-Stroke	428	11.8%
12-Other orthopaedic	240	6.6%
03-Non-traumatic brain injury		
13-Cardiac		
06-Non-traumatic spinal cord injury		
07-Amputation		
02-Traumatic brain injury		
16-Major multiple trauma		

\* FY 16/17 data unless noted otherwise.

\*\* Top or bottom 4 ranking in the province, compared to other LHINs.

\*\*\* Prior to 2014/15, activity for St. John's Rehab is included in Central LHIN, from 2014/15 onwards, is it included in Toronto Central

## Complex Continuing Care Utilization

### Complex Continuing Care

- In 2016/17, there were 7,447 CCC active cases treated in Toronto Central LHIN hospitals and residents from outside the LHIN accounted for 50.8% of these active cases. In 2016/17, there were 5,790 admissions and 5,809 discharges from Toronto Central LHIN hospital CCC units. Toronto Central LHIN hospitals had a mean LOS of 112.6 days - ranking 14th across LHINs.
- There were reductions in the number of active cases (-1.3%), admissions (-2.3%), and discharges (-1.7%) for Toronto Central LHIN hospital CCC units between 2013/14 and 2016/17, while there was an 8.3% increase in total days.
- During the period, the mean length of stay in CCC beds increased from 102.2 days to 112.6 days.
- In 2016/17, there were 3,696 CCC active cases for Toronto Central LHIN residents, and 0.9% of these cases were treated in hospitals outside the LHIN.
- The active case rate for Toronto Central LHIN residents was higher than the provincial value.

### Utilization of Complex Continuing Care, Toronto Central LHIN and Ontario, 2016/17

Measure	Toronto Central LHIN		Ontario	
	LHIN Values	% Change 2013/14-2016/17	Provincial Value	% Change 2013/14- 2016/17
<b>LHIN of Hospital</b>				
Active Cases	7,447	-1.3%	29,466	-0.1%
% Inflow	50.8%			
Admissions	5,790	-2.3%	24,108	0.5%
Discharges	5,809	-1.7%	23,995	-0.2%
Total Days	653,845	8.3%	1,855,227	-2.0%
Mean LOS	112.6		77.3	
<b>LHIN of Patient</b>				
Active Cases	3,696	-4.0%	29,366	0.3%
Active cases/100,000 population	287.7	-8.3%	210.0	-2.9%
% Outflow	0.9%			
Admission	2,863	-5.1%	24,022	0.8%
Admissions/100,000 population	222.9		171.8	
Discharges	2,903	-4.3%	23,908	0.1%
Discharges/100,000 population	226.0		171.0	
Total Days	352,036	7.4%	1,850,599	-1.1%
Mean LOS	121.3		77.4	

## Alternate Level of Care

### LHIN overview<sup>5</sup>

Toronto Central LHIN						
Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Rank
Acute ALC Days (closed cases)	94,540	99,937	107,184	133,224	NV	14
% ALC Days (Acute Inpatient closed cases)	9.5%	9.8%	10.5%	12.7%	NV	4
Volume of Closed Cases	9,183	9,271	9,111	9,098	9,102	14
Volume of Closed Cases - Home with CCAC Services	1,548	1,307	1,211	1,209	1,167	
Volume of Closed Cases - Palliative Care	868	959	1,081	927	879	
Volume of Closed Cases - Rehabilitation	0	0	4,362	4,466	4,637	
90 <sup>th</sup> Percentile Wait of Closed Cases (Days)	44	44	51	54	42	5
90 <sup>th</sup> Percentile Wait of Closed Cases - Home with CCAC Services	30	31	36	34	32	
90 <sup>th</sup> Percentile Wait of Closed Cases - Palliative Care	24	21	22	19	21	
90 <sup>th</sup> Percentile Wait of Closed Cases - Rehabilitation	0	0	15	16	13	
Volume of Open Cases on the last day of the year	603	611	728	601	615	14
Volume of Open Cases - Long Term Care	0	0	339	298	236	
Volume of Open Cases - Rehabilitation	106	68	97	68	90	
Volume of Open Cases - Supervised or Assisted Living	0	0	90	95	124	
90 <sup>th</sup> Percentile Wait of Open Cases	441	468	434	591	688	14
90 <sup>th</sup> Percentile Wait of Open Cases - Long Term Care	0	0	444	637	802	
90 <sup>th</sup> Percentile Wait of Open Cases - Rehabilitation	40	31	43	45	47	
90 <sup>th</sup> Percentile Wait of Open Cases - Supervised or Assisted Living	0	0	1,094	1,157	1,132	
Throughput Ratio (discharged case/newly added cases)	1.00	1.00	0.99	1.01	0.99	12
% of Cases Designated ALC Within 1 Day	5.1%	4.6%	5.5%	5.1%	5.4%	6
% of Cases Designated ALC Within 2 Days	9.9%	9.3%	10.4%	10.1%	10.5%	7
% of Cases Designated ALC Within 3 Days	16.0%	15.4%	16.2%	16.5%	16.8%	8
ALC Rate - All Inpatient Services	10.2%	10.2%	11.6%	12.2%	11.4%	2
ALC Rate - Acute Inpatient Services	9.8%	10.4%	11.4%	12.0%	11.4%	4
ALC Rate - Post-Acute Inpatient Services	10.6%	10.1%	11.7%	12.4%	11.3%	6
ALC Rate - CCC Inpatient Services	11.5%	11.2%	13.7%	15.7%	14.0%	4
ALC Rate - Rehab Inpatient Services	4.3%	3.9%	4.8%	4.5%	4.0%	4
ALC Rate - Mental Health Inpatient Services	15.0%	14.2%	14.3%	13.3%	13.2%	11

<sup>5</sup> One hospital facility in the Toronto Central LHIN does not participate in WTIS reporting.



## Closed ALC Cases

### Acute ALC Days

- Acute ALC Days increased by 38,684 from FY 13/14 to FY 16/17

### % ALC Days (Acute Inpatient)

- % ALC Days increased from 9.5% in FY 13/14 to 12.7% in FY 16/17

### Volume of Closed Cases

- The volume of closed cases for all inpatient services decreased by 1% from 9,183 in FY 13/14 to 9,102 in FY 17/18.
  - Home with CCAC Services – number of closed cases decreased by 25% from 1,548 in FY 13/14 to 1,167 in FY 17/18
  - Palliative Care – number of closed cases increased by 1% from 868 in FY 13/14 to 879 in FY 17/18
  - Rehabilitation – number of closed cases increased by 6% from 4,362 in FY 15/16 to 4,637 in FY 17/18

### 90th Percentile Wait of Closed Cases

- The wait time for closed cases (all inpatient services and all discharge destinations) decreased by 5% from 44 days in FY 13/14 to 42 days in FY 17/18. 10<sup>th</sup> across LHINs at the end of FY 17/18.
  - Home with CCAC Services – wait time increased by 7% from 30 days in FY 13/14 to 32 days in FY 17/18.
  - Palliative Care – wait time decreased by 13% from 24 days in FY 13/14 to 21 days in FY 17/18.
  - Rehabilitation – wait time decreased by 13% from 15 days in FY 15/16 to 13 days in FY 17/18.

### Wait Time by Sub-Region of Patient Residence

- **West Toronto** residents had the longest wait in the LHIN at 70 days; **North Toronto** had the shortest at 41 days.

## Open ALC Cases

### Volume of Open Cases

- The number of ALC waitlist entries open across all inpatient bed types increased by 2% from 603 at the end of FY 13/14 to 615 at the end of FY 17/18.
  - Long-term Care – number of open cases decreased by 30% from 339 at the end of FY 15/16 to 236 at the end of FY 17/18
  - Rehabilitation – number of open cases decreased by 15% from 106 at the end of FY 13/14 to 90 at the end of FY 17/18
  - Supervised or Assisted Living – number of open cases increased by 38% from 90 at the end of FY 15/16 to 124 at the end of FY 17/18

### 90th Percentile Wait of Open Cases

- The wait time for open cases (all inpatient services and all discharge destinations) increased by 56% from 441 days at the end of FY 13/14 to 688 days at the end of FY 17/18. Patients awaiting discharge from Toronto Central LHIN hospitals had waited 646 days longer than patients who were discharged in 17/18, and had the **longest** wait across the LHINs at the end of FY 17/18.
  - Long-term Care – wait time increased by 81% from 444 days at the end of FY 15/16 to 802 days at the end of FY 17/18.
  - Rehabilitation – wait time increased by 18% from 40 days at the end of FY 13/14 to 47 days at the end of FY 17/18.

- **Supervised or Assisted Living** - wait time increased by 3% from 1,094 days at the end of FY 15/16 to 1,132 days at the end of FY 17/18.

#### *Wait Time by Sub-Region of Patient Residence*

- **Mid-West Toronto** residents had the longest wait in the LHIN at 809 days; **East Toronto** had the shortest at 403 days
- **West Toronto** is 6<sup>th</sup> highest in province
- **Mid-West Toronto** is 2<sup>nd</sup> highest in province
- **North Toronto** is 7<sup>th</sup> highest in province

#### **ALC Wait Time (Days) by Sub-Region of Patient Residence**

Toronto Central LHIN					
Closed & Open Cases - All Discharge Destinations by Sub-Region	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
<i>90<sup>th</sup> Percentile Wait of Closed Cases</i>					
701 WEST TORONTO	50	47	60	84	70
702 MID-WEST TORONTO	60	55	79	84	60
703 NORTH TORONTO	40	37	44	38	41
704 MID-EAST TORONTO	50	48	57	76	49
705 EAST TORONTO	46	44	51	49	45
<i>90<sup>th</sup> Percentile Wait of Open Cases</i>					
701 WEST TORONTO	433	300	297	632	641
702 MID-WEST TORONTO	620	754	590	569	809
703 NORTH TORONTO	529	358	512	723	635
704 MID-EAST TORONTO	280	299	358	500	499
705 EAST TORONTO	360	385	344	442	403

#### Hospital Processes and Capacity

##### **ALC Throughput Ratio**

- In the Toronto Central LHIN, the throughput ratio decreased from 1.00 in FY 13/14 to 0.99 in FY 17/18

##### **Percentage of Patients Designated ALC within 1, 2 & 3 Days of Admission**

- The percentage of patients that have been designated as requiring an alternate level of care within one, two and three days of admission to hospital increased over the last five years in the Toronto Central LHIN from FY 13/14 to FY 17/18. All, 3 measures are ranked 9<sup>th</sup>, 8<sup>th</sup>, 7<sup>th</sup> respectively.

##### **ALC Rate (All Inpatient Services)**

- The annual ALC rate for all inpatient beds increased from 10.2% in FY 13/14 to 11.4% in FY 17/18.
- In FY 17/18, the Toronto Central LHIN was below the provincial rate of 15.4%.

##### *Acute I/P Services*

- Toronto Central LHIN increased over the past 5 fiscal years (9.8% FY 13/14; 11.4% FY 17/18) and is 4.8% below the provincial value.

##### *Post-Acute I/P Services*

- Toronto Central LHIN increased over the past 5 fiscal years (10.6% FY 13/14; 11.3% FY 17/18). Toronto Central LHIN is below the provincial Post-acute ALC rate (9<sup>th</sup> in ON).
  - CCC Inpatient Services – 11<sup>th</sup> across LHINs for FY 17/18. Rate increased from 11.5% in FY 13/14 to 14.0% in FY 17/18.
  - Mental Health Inpatient Services – 4<sup>th</sup> across LHINs for FY 17/18. Rate decreased from 15.0% in FY 13/14 to 13.2% in FY 17/18.
  - Rehab Inpatient Services - 11<sup>th</sup> across LHINs for FY 17/18. Rate decreased from 4.3% in FY 13/14 to 4.0% in FY 17/18.

## LHIN/Facility/Site – Annual ALC Rate

Province/LHIN/Facility/Site			Annual ALC Rate					% Change
			FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 13/14 to FY 17/18
<b>Provincial</b>			<b>13.8%</b>	<b>13.7%</b>	<b>13.9%</b>	<b>14.8%</b>	<b>15.4%</b>	
<b>LHIN</b>	<b>7</b>	<b>Toronto Central</b>	10.2%	10.2%	11.6%	12.2%	11.4%	1.2%
<b>Facility</b>	613	WEST PARK HEALTHCARE CENTRE	1.1%	0.9%	1.5%	1.4%	0.8%	(-0.3%)
<b>Facility</b>	773	PROVIDENCE HEALTHCARE	10.7%	12.5%	15.8%	19.2%	17.4%	6.7%
<b>Facility</b>	827	BAYCREST HOSPITAL (NORTH YORK)	11.4%	10.9%	12.8%	16.6%	13.8%	2.3%
<b>Facility</b>	837	HOSPITAL FOR SICK CHILDREN (THE)	0.6%	0.3%	0.2%	0.3%	0.7%	0.1%
<b>Facility</b>	842	MOUNT SINAI HOSPITAL	6.9%	5.8%	N/A	NR	NR	
<b>Facility</b>	849	BRIDGEPOINT HOSPITAL	19.0%	16.6%	NR	NR	NR	
<b>Facility</b>	850	RUNNYMEDE HEALTHCARE CENTRE	6.6%	4.4%	7.8%	9.0%	6.0%	(-0.6%)
<b>Facility</b>	852	ST MICHAEL'S HOSPITAL	6.1%	6.1%	7.9%	7.1%	6.8%	0.6%
<b>Facility</b>	854	SALVATION ARMY GRACE HOSPITAL	10.4%	9.3%	12.0%	7.7%	4.2%	(-6.3%)
<b>Facility</b>	858	TORONTO EAST GENERAL HOSPITAL (THE)	19.0%	18.2%	19.3%	19.2%	18.5%	(-0.5%)
<b>Facility</b>	898	ST JOSEPH'S HEALTH CENTRE	17.3%	17.3%	17.2%	19.4%	18.4%	1.1%
<b>Facility</b>	939	BLOORVIEW KIDS REHAB	10.3%	9.3%	15.2%	12.8%	11.0%	0.7%
<b>Facility</b>	947	UNIVERSITY HEALTH NETWORK	10.2%	12.6%	13.6%	13.7%	9.6%	(-0.6%)
<b>Site</b>	4265	UHN - TORONTO GENERAL HOSPITAL	10.2%	12.6%	13.6%	13.7%	9.6%	(-0.6%)
<b>Site</b>	4266	UHN - TORONTO WESTERN HOSPITAL	N/A	N/A	N/A	N/A	N/A	
<b>Site</b>	4406	UHN - PRINCESS MARGARET HOSPITAL	N/A	N/A	N/A	N/A	N/A	
<b>Facility</b>	948	CENTRE FOR ADDICTION&MENTAL HLTH	19.3%	18.4%	17.7%	17.0%	17.0%	(-2.3%)
<b>Facility</b>	953	SUNNYBROOK HEALTH SCIENCES CENTRE	6.5%	7.9%	8.3%	9.0%	10.3%	3.7%
<b>Site</b>	4205	SUNNYBROOK HEALTH SCIENCES CENTRE – BAYVIEW	7.2%	8.4%	8.9%	9.8%	11.1%	3.9%
<b>Site</b>	4765	ST JOHN'S REHABILITATION HOSPITAL	2.5%	4.9%	4.2%	4.3%	5.6%	3.1%
<b>Facility</b>	956	TORONTO REHABILITATION INSTITUTION	6.4%	4.9%	9.8%	10.1%	8.4%	2.0%
<b>Site</b>	3949	TORONTO REHABILITATION INSTITUTION - BICKLE	4.5%	3.6%	10.1%	13.5%	13.1%	8.6%
<b>Site</b>	3950	TORONTO REHABILITATION INSTITUTION - HILLCREST	9.3%	7.1%	11.4%	8.2%	5.3%	(-4.0%)
<b>Site</b>	3951	TORONTO REHABILITATION INSTITUTION - LYNDHURST	5.2%	3.4%	4.2%	2.8%	2.1%	(-3.1%)
<b>Facility</b>	976	SINAI HEALTH SYSTEM	N/A	N/A	12.8%	15.6%	15.9%	3.1%
<b>Site</b>	4808	BRIDGEPOINT HOSPITAL SITE	N/A	N/A	17.5%	20.8%	20.4%	2.9%
<b>Site</b>	4805	MOUNT SINAI HOSPITAL SITE	N/A	N/A	7.8%	9.5%	9.4%	1.6%

\*If all 5 years are not available, then available years used to calculate % change

- In FY 17/18, Toronto East General Hospital had the highest ALC Rate across the Toronto Central LHIN at the facility level, with Bridgepoint Hospital having the highest site level rate.
- Toronto Rehabilitation Institute – Bickle had the greatest increase in ALC Rate since FY 13/14 (+8.6%)
- Toronto Rehabilitation Institute – Hillcrest had the greatest decrease in ALC Rate since FY 13/14 (-4.0%).

## Long-Term Care

### Long-Term Care Bed Supply

- 36 LTC homes are licensed and approved to operate in Toronto Central LHIN.
- As of February 2018, there were a total of 5,878 Long-Term Care beds in operation in Toronto Central LHIN.
  - With the exception of 60 beds designated as Short-stay, Respite or Convalescent care beds, almost all of the LTC beds are designated Long-Stay Beds or Interim beds.

### Long-Term Care Waitlist & Placements

- Of the 1,476 patients placed in Toronto Central LHIN Long-Term Care Homes in FY 2017/18, approximately 87% were from the community while only 5% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province)
- Of the 1,444 residents of Toronto Central LHIN placed in Ontario Long-Term Care Homes in FY 2017/18, approximately 80% were from the community while only 8% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province)
- The median time to placement in a Toronto Central LHIN long-term care home, as of March 2018, was 225 days.
  - Half of community patients waited less than 237 days for a placement in a Toronto Central LHIN LTC home while half of hospital patients waited less than 113 days for placement in a Toronto Central LHIN LTC Home.
- The median time to placement for a Toronto Central LHIN resident to be placed in a long-term care home, as of March 2018, was 196 days.
  - Half of community patients from Toronto Central LHIN waited less than 208 days for a placement in an Ontario LTC home while half of hospital patients waited less than 132 days for placement.
- As of March 2018, there were 2,414 patients on the waitlist waiting for placement in a Long-Term Care home in Toronto Central LHIN (not including patients awaiting transfer from one LTC home to another).
- As of March 2018, there were 2,217 residents of Toronto Central LHIN on the waitlist waiting for placement in an Ontario Long-Term Care home (not including patients awaiting transfer from one LTC home to another).

### Long-Stay Demand

- As of March 2018, there were 5,727 long-stay residents occupying LTC Homes within Toronto Central LHIN.
- When adjusted for the size of the older population, Toronto Central LHIN has approximately 62 Long-Stay beds per 1,000 people aged 75+.
- The gap between the Demand and Supply of Long-Term Care Homes in Toronto Central LHIN reflects a shortage of approximately 2,323 Long-Stay beds.
  - The largest gap in the [North Toronto](#) sub-region (761 beds) and the smallest gap is in [Mid-East Toronto](#) (80 beds).

### Selected Characteristics of Long-Term Care Home Residents

- In Toronto Central LHIN, 81% of Residents were over the age of 75 with 54% being over the age of 85
- In 2016/17, the mean age of residents of LTC Homes in Toronto Central LHIN was 83
- The mean length of stay for residents of LTC Homes in Toronto Central LHIN was 1,107 days (about 3. years) with half of residents remaining in LTC homes for less than 705 days.
- Nearly 85% of residents need extensive help with daily activities such as getting out of bed, eating, or toileting; 40% are highly or entirely dependent on staff
- 78% have some form of cognitive impairment; 30% are severely impaired

- 42% exhibit some level of aggressive behaviour related to their cognitive impairment or mental health condition with 7% exhibiting very severe aggressive behavior.
- 62% of active LTC Residents in Toronto Central LHIN LTC Homes have been identified as having some form of dementia.

### Long-term care home supply, waitlists and placements, and resident characteristics, by LHIN sub-region

	Toronto Central		0701		0702		0703		0704		0705	
			West		Mid-West		North		Mid-East		East	
Long-term care bed supply in the sub-region (February 2018)	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-term care homes	36		9		10		5		3		9	
Long-stay beds	5,818	61.9	1,073	52.8	1,824	73.8	951	48.7	511	55.6	1,459	72.0
Short-stay, respite & convalescent care beds	60	0.6	5	0.2	23	0.9	1	0.1	15	1.6	16	0.8
Total beds in operation	5,878	62.5	1,078	53.0	1,847	74.8	952	48.8	526	57.2	1,475	72.8

*†The denominator for the rate calculation refers to the number of sub-region residents age 75+; however the LTC homes/beds may serve individuals from other sub-regions. Therefore, rates should be interpreted with caution.*

	Toronto Central		0701		0702		0703		0704		0705	
			West Toronto		Mid-West Toronto		North Toronto		Mid-East Toronto		East Toronto	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>By sub-region of long-term care home (patients awaiting placement in a home within the sub-region)</b>												
Long-stay waitlist without transfer patients*	2,414	25.7	283	13.9	733	29.7	775	39.7	83	9.0	540	26.7
<b>Placements**</b>												
From community	1,278	86.6%	236	86.4%	364	85.0%	273	90.7%	98	81.7%	307	86.7%
From hospital	80	5.4%	14	5.1%	29	6.8%	9	3.0%	7	5.8%	21	5.9%
Total	1,476		273		428		301		120		354	
<b>Median time to placement (days)</b>												
From community	237		185.0		218.0		463.0		191.0		252.0	

From hospital	113	134.0	119.0	119.0	94.0	79.0
Total	225	182.0	205.0	449.0	184.0	248.5

***By sub-region of patient (patients who reside within the sub-region and are awaiting placement in any home)***

<b>Long-stay waitlist without transfer patients*</b>	2,217	23.6	511	25.1	563	22.8	458	23.5	236	25.7	449	22.2
<b>Placements**</b>												

From community	1,148	79.5%	247	78.9%	324	81.2%	180	74.7%	132	80.5%	265	81.0%
From hospital	113	7.8%	31	9.9%	15	3.8%	21	8.7%	12	7.3%	34	10.4%
Total	1,444		313		399		241		164		327	

**Median time to placement (days)**

From community	208	183.0	186.0	339.0	226.0	196.0
From hospital	132	136.0	223.0	76.0	132.0	100.0
Total	196	174.0	172.0	263.0	209.5	190.0

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents

Placements from other locations (correctional facilities, homeless, out-of-province) are not shown but are included in the total placement values.



	Toronto Central		0701		0702		0703		0704		0705	
			West Toronto		Mid-West Toronto		North Toronto		Mid-East Toronto		East Toronto	
Long-stay demand (February / March 2018) for LTC homes in the sub- region	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-stay residents	5,727	60.9	1,055	51.9	1,790	72.5	937	48.0	508	55.2	1,437	70.9
Long-stay waitlist without transfer patients	2,414	25.7	283	13.9	733	29.7	775	39.7	83	9.0	540	26.7
Total demand	8,141	86.6	1,338	65.8	2,523	102.1	1,712	87.7	591	64.2	1,977	97.6
Total long-stay supply	5,818	62	1,073	52.8	1,824	73.8	951	48.7	511	55.6	1,459	72.0
Difference between supply and demand	2,323	25	265	13.0	699	28.3	761	39.0	80	8.7	518	25.6

	Toronto Central		0701		0702		0703		0704		0705	
			West Toronto		Mid-West Toronto		North Toronto		Mid-East Toronto		East Toronto	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Demography, volume and length of stay (LOS)</b>												
Active LTC Residents*	5,088	54.1	916	45.0	1,573	63.7	884	45.3	454	49.4	1,261	62.2
Number of admissions*	1,734	18.4	376	18.5	502	20.3	315	16.1	144	15.7	397	19.6
<b>By age group**</b>												
Residents age <65	373	7.3%	66	7.2%	170	10.8%	32	3.6%	39	8.6%	66	5.2%
Residents age 65-74	617	12.1%	106	11.6%	217	13.8%	94	10.6%	85	18.7%	115	9.1%
Residents age 75-84	1,328	26.1%	211	23.0%	427	27.1%	212	24.0%	128	28.2%	350	27.8%
Residents age 85+	2,770	54.4%	533	58.2%	759	48.3%	546	61.8%	202	44.5%	730	57.9%

	Toronto Central		0701		0702		0703		0704		0705	
			West Toronto		Mid-West Toronto		North Toronto		Mid-East Toronto		East Toronto	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Mean age of residents	83		84		81		86		81		85	
Mean age of residents at admission	83		84		81		85		81		84	
<b>Length of stay</b>												
Mean LOS (days)	1,107		1,086		1,138		1,196		937		1,059	
Median LOS (days)	705		601		733		785		585		649	
<b>Residents by level of ADL assistance required**</b>												
None or limited assistance required	770	15.1%	136	14.8%	261	16.6%	123	13.9%	33	7.3%	217	17.2%
Extensive assistance required	2,301	45.2%	420	45.9%	752	47.8%	320	36.2%	231	50.9%	578	45.8%
Dependent	2,017	39.6%	360	39.3%	560	35.6%	441	49.9%	190	41.9%	466	37.0%
<b>Residents by level of aggressive behaviour**</b>												
No signs of aggressive behaviour	2,937	57.7%	534	58.3%	915	58.2%	561	63.5%	211	46.5%	716	56.8%
Some signs of aggressive behaviour	1,030	20.2%	144	15.7%	321	20.4%	192	21.7%	102	22.5%	271	21.5%
Moderate to severe aggressive behaviour	756	14.9%	153	16.7%	242	15.4%	83	9.4%	93	20.5%	185	14.7%
Very severe aggressive behaviour	364	7.2%	84	9.2%	95	6.0%	48	5.4%	48	10.6%	89	7.1%
<b>Cognitive impairment categories**</b>												
Relatively intact	1,107	21.8%	189	20.6%	368	23.4%	186	21.0%	112	24.7%	252	20.0%

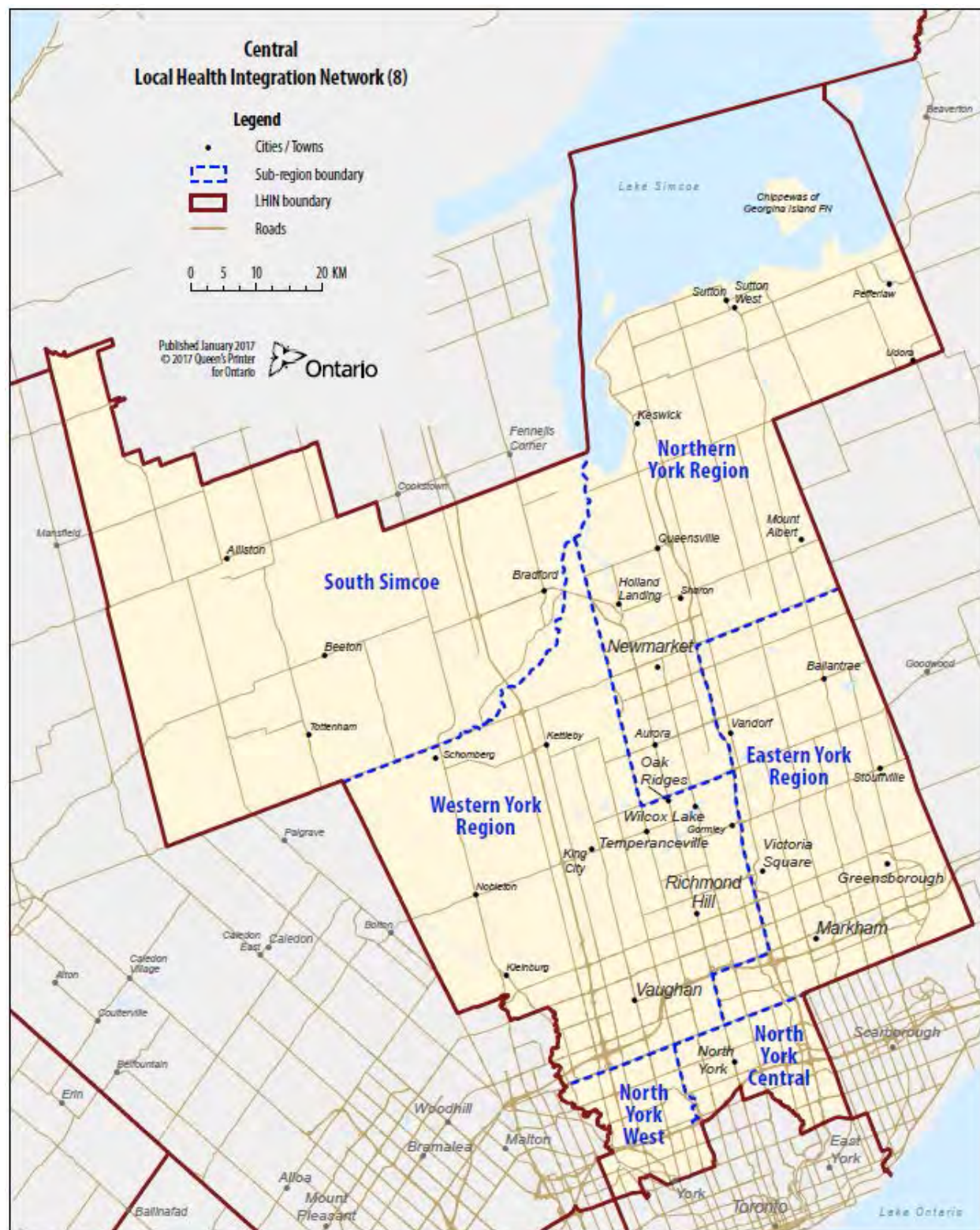
	Toronto Central		0701		0702		0703		0704		0705	
			West Toronto		Mid-West Toronto		North Toronto		Mid-East Toronto		East Toronto	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Mild impairment	2,465	48.4%	430	46.9%	772	49.1%	376	42.5%	193	42.5%	694	55.0%
Severe impairment	1,516	29.8%	297	32.4%	433	27.5%	322	36.4%	149	32.8%	315	25.0%
<b>RUG categories **</b>												
1 Extensive Services	299	5.9%	35	3.8%	81	5.1%	83	9.4%	15	3.3%	85	6.7%
2 Special Rehabilitation	216	4.2%	14	1.5%	79	5.0%	23	2.6%	13	2.9%	87	6.9%
3 Special Care	537	10.6%	82	9.0%	142	9.0%	88	10.0%	43	9.5%	182	14.4%
4 Clinically Complex	1,392	27.4%	228	24.9%	373	23.7%	336	38.0%	126	27.8%	329	26.1%
5 Impaired Cognition	436	8.6%	111	12.1%	138	8.8%	57	6.4%	19	4.2%	111	8.8%
6 Behavioural Problems	86	1.7%	14	1.5%	46	2.9%	11	1.2%	<5		11	0.9%
7 Reduced Physical Functions	2,122	41.7%	432	47.2%	714	45.4%	286	32.4%	234	51.5%	456	36.2%
<b>Residents with Dementia**</b>	<b>3,174</b>	<b>62.4%</b>	<b>601</b>	<b>65.6%</b>	<b>928</b>	<b>59.0%</b>	<b>620</b>	<b>70.1%</b>	<b>242</b>	<b>53.3%</b>	<b>783</b>	<b>62.1%</b>

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents



## 8. Central LHIN



## Contents

<b>8. Central LHIN</b>	<b>1</b>
<b>Highlights</b>	<b>1</b>
Central LHIN.....	1
Residents of Central LHIN Sub-Regions.....	3
<b>Population Characteristics</b>	<b>9</b>
Population Estimates.....	9
2016 Census Profile.....	10
Births and Mortality.....	17
General Health, Risk Factors, and Prevention.....	23
Chronic Conditions.....	25
<b>Human Resources</b>	<b>39</b>
<b>Primary Care</b>	<b>42</b>
Primary Care Enrolment.....	42
Selected Measures from the Health Care Experience Survey.....	42
<b>Community Care</b>	<b>44</b>
<b>Mental Health</b>	<b>45</b>
Wait Time for Community Services.....	45
Mental Health and Substance Abuse Emergency Department Visits.....	45
Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility.....	46
<b>Surgery &amp; Diagnostic Imaging</b>	<b>48</b>
Day Surgery and Cardiac Catheterization Utilization.....	48
Surgical & Diagnostic Imaging Wait Times.....	49
<b>Oncology and Dialysis</b>	<b>58</b>
<b>Home Care</b>	<b>61</b>
<b>Palliative Care</b>	<b>64</b>
<b>Emergency Department Utilization</b>	<b>67</b>
Emergency Department Utilization.....	67
Emergency Department Performance.....	71
<b>Acute Care</b>	<b>73</b>
Acute Care Utilization by Residents of the Central LHIN.....	73
Acute Care Utilization for Central LHIN Facilities.....	74
Acute Care Inflow/Outflow.....	75
<b>Post-Acute Care</b>	<b>77</b>
Inpatient Rehabilitation Utilization.....	77
Complex Continuing Care Utilization.....	80
<b>Alternate Level of Care</b>	<b>81</b>
Closed ALC Cases.....	82
Open ALC Cases.....	82
Hospital Processes and Capacity.....	84
<b>Long-Term Care</b>	<b>86</b>

## Highlights

Comprehensive information about population demographics, health status, health outcomes, chronic conditions, human resources, primary care, health service utilization, and long-term care in the Central LHIN can be found under the content headings of in the remainder of this document, beginning with the socio-demographic profile. This Highlights introduction is intended to provide a guide to areas in which either the Central LHIN or one of its sub-regions is significantly different from the province as a whole. Sub-region comparisons within this section are always to the other 75<sup>1</sup> sub-regions across the province, and LHIN comparisons are always to the other 13 LHINs.

### Central LHIN

#### Population Characteristics

- The Central LHIN had the **largest** population of the 14 LHINs, with 17% more residents than the next most populous LHIN (Central East).
- The Central LHIN had the **lowest** percentage of population who report English as their mother tongue.
- The Central LHIN had the **highest** percentage of residents with no knowledge of either official language.
- The Central LHIN had the **highest** percentage of both immigrants and of recent immigrants. The country of origin for the largest proportion of recent immigrants was China.
- The Central LHIN had the **highest** percentage of first generation Canadians.
- The Central LHIN had the second highest percentage of visible minorities.
- The Central LHIN had the **lowest** percentage of residents reporting Aboriginal identity.
- The Central LHIN had the third highest percentage of residents with bachelor's degree completion and beyond.
- The fertility rate was the 3<sup>rd</sup> lowest rate in the province. The teen fertility rate with the 2<sup>nd</sup> lowest in the province.
- Central had the 2<sup>nd</sup> lowest proportion of hospital births attended by a midwife.
- The acute separation rate for Central LHIN residents was 2<sup>nd</sup> lowest amongst LHINs.
- **Central** LHIN hospitals had the **largest** increase in number of day surgery and ambulatory cardiac catheterization visits between 2013/14 and 2016/17.
- ED usage between FY13/4 and FY16/17 grew **most** in the Central LHIN.
- Emergency departments in the Central LHIN saw the **most** non-admitted high acuity patients in 2017/18.
- Residents of the Central LHIN had a **significantly higher** rate of unplanned ED visits in the last 30 days of life than the province as a whole.
- The Central LHIN had a **significantly higher** percentage of people who died in hospital than Ontario, and also had the highest rate in the province.
- Residents of the Central LHIN had the **lowest** rate of acute hospital days per 1,000 residents in 2016/17.
- Central hospitals had the **largest** percentage increase in acute days between 2013/14 and 2016/17.
- Central hospitals showed the **largest** percentage increase in total days (acute days plus ALC days) between 2013/14 and 2016/17.

---

<sup>1</sup> Or however many sub-regions have reported data across the province.



- The Central LHIN had the 2<sup>nd</sup> highest proportion of inflow (residents of other LHINs admitted to acute inpatient beds in the Central LHIN).
- The Central LHIN had the 2<sup>nd</sup> highest proportion of outflow (residents of the Central West LHIN admitted to acute inpatient beds in other LHINs).
- Central hospitals had the **shortest** length of stay in CCC units in 2016/17.

### Strengths

- Central LHIN had the **highest** mean life expectancy at birth.
- In 2016, the stillbirth rate in the Central LHIN was the **lowest** in the province.
- In Central, the rate of women who self-identified as non-smokers at first prenatal visit and at the time of labour were both the **highest** in the province.
- Central had the 2<sup>nd</sup> lowest proportion of women who reported drinking alcohol, and the **lowest** who reported using drugs during pregnancy.
- 7.1% of newborns were classified as “large for gestational age” in FY2016, the 2<sup>nd</sup> lowest proportion in the province. In 2016, the “large for gestational age” rate was the 2<sup>nd</sup> lowest in the province.
- A **significantly lower** proportion of Central residents reported daily or occasional smoking in 2015/16 than Ontarians as a whole. The proportion of people exposed to second hand smoke in the home was the **lowest** among LHINs and also **significantly lower** than the Ontario rate.
- Central residents reported the **lowest** rate heavy drinking among LHINs and **significantly lower** than the Ontario rate
- The Central LHIN had the second lowest rate of self-reported overweight or obesity, **significantly lower** than Ontario.
- The Central LHIN had the **highest** proportion of residents who have consulted with a family doctor/general practitioner in the past year.
- The prevalence rate for residents with one or more chronic conditions was **significantly lower** than Ontario and was the 2<sup>nd</sup> lowest among the LHINs. Additionally, the prevalence rate for residents with two or more chronic conditions was **significantly lower** than Ontario.
- The Central LHIN had the **lowest** prevalence rate for arthritis.
- The Central LHIN had the 2<sup>nd</sup> lowest prevalence rate for asthma, chronic obstructive pulmonary disease, hypertension, and heart disease.
- Central LHIN residents had the **lowest** ED visit rates for MH/SA conditions.
- Central LHIN residents had the **lowest** rate of emergency department utilization for opioid overdose in 2016/17.
- In 2017/18, 90<sup>th</sup> percentile wait time for cataract surgeries was **shortest** in the **Central** LHIN.
- In 2017/18, 90<sup>th</sup> percentile wait time for hip replacement surgeries was **shortest** in the **Central** LHIN.
- In 2017/18, 90<sup>th</sup> percentile wait time for knee replacement surgeries was **shortest** in the **Central** LHIN.

### Challenges/Opportunities

- In 2016, the “small for gestational age” rate was the 2<sup>nd</sup> highest in the province.
- The rate of exclusive breastfeeding at discharge was the 2<sup>nd</sup> lowest in the province.
- The Central LHIN rate had the highest rate of physical inactivity among LHINs, **significantly higher** than Ontario overall.



## Residents of Central LHIN Sub-Regions

### NORTH YORK WEST SUB-REGION HIGHLIGHTS

#### Population Characteristics

- 8<sup>th</sup> highest population density.
- 7<sup>th</sup> lowest percentage of residents who reported English as their mother tongue.
- 7<sup>th</sup> lowest percentage of residents who reported French as their mother tongue.
- 3<sup>rd</sup> highest percentage of residents who reported no knowledge of English or French.
- 6<sup>th</sup> highest percentage residents who were immigrants.
- 5<sup>th</sup> highest percentage of residents who were recent immigrants. The country of origin for the largest proportion of recent immigrants was the Philippines.
- 4<sup>th</sup> highest percentage of residents who were first generation Canadian.
- 8<sup>th</sup> highest percentage of residents who were visible minorities.
- 4<sup>th</sup> highest percentage of residents with less than high school.
- Among the eight sub-regions with the highest service hour rates for personal support.
- 3<sup>rd</sup> highest percent of residents with one or more unplanned ED visits in the last 30 days of life (tied with [Scarborough North](#)).
- 7<sup>th</sup> highest percentage of residents who died in hospital (tied with [Cochrane](#)).
- Among the longest acute length of stay in acute hospital beds in 2016/17.

#### Strengths

- **Significantly lower** prevalence rate for asthma than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- 3<sup>rd</sup> highest percentage of residents who were able to see their provider the same day or next day when they were sick.

#### Challenges/Opportunities

- 3<sup>rd</sup> highest percentage of households with an insufficient number of bedrooms to accommodate household size.
- 4<sup>th</sup> highest percentage population living below the low-income measure.
- 2<sup>nd</sup> highest percentage of children under 6 living in low-income households.
- **Highest** percentage of children under 18 living in low-income households of all Ontario sub-regions.
- 6<sup>th</sup> highest percentage of residents spending 30% or more of household income on rent or payments.
- 8<sup>th</sup> highest percentage of residents who were unemployed.
- 7<sup>th</sup> highest percentage of participants in the labour force with a commuting duration of 60 minutes and over.
- 3<sup>rd</sup> highest full-term low birth weight rate in the province.
- 5<sup>th</sup> highest low birth weight rate in the province.
- 7<sup>th</sup> highest pre-term birth rate in the province.
- 5<sup>th</sup> highest “small for gestation age” rate in the province.
- The physical inactivity rate was **significantly higher** in [North York West](#), compared to Ontario.
- Among the 8 sub-regions with the highest mean cost per high cost healthcare user.

## NORTH YORK CENTRAL SUB-REGION HIGHLIGHTS

### Population Characteristics

- 7<sup>th</sup> highest population.
- 5<sup>th</sup> lowest dependency ratio.
- 6<sup>th</sup> highest population density.
- 2<sup>nd</sup> lowest percentage of residents who reported English as their mother tongue.
- 6<sup>th</sup> highest percentage of residents who reported no knowledge of English or French.
- 2<sup>nd</sup> highest percentage residents who were immigrants.
- **Highest** percentage of recent immigrants among the 76 sub-regions. The country of origin for the largest proportion of recent immigrants was the Philippines.
- 2<sup>nd</sup> highest percentage of residents who were first generation Canadian.
- 4<sup>th</sup> lowest percentage of residents reporting Aboriginal identity.
- 4<sup>th</sup> lowest percentage of residents with less than high school.
- 5<sup>th</sup> lowest percentage of residents with only high school completion.
- 5<sup>th</sup> lowest percentage of residents with post-secondary education below bachelor's degree.
- 4<sup>th</sup> highest percentage of residents with bachelor's degree completion and beyond.
- 7<sup>th</sup> highest mean age of mothers at the birth of their first infant.
- 7<sup>th</sup> highest overall mean age of mothers giving birth.
- Among the eight sub-regions with the highest service hour rates for personal support.

### Strengths

- 5<sup>th</sup> lowest "large for gestational age" rate in the province.
- Overweight or obesity rates were **significantly lower** in North York Central than Ontario. *Note: The reported rate had a high coefficient of variation, the rate must be used with caution.*
- **Significantly lower** prevalence rate for asthma, than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- Among the 8 sub-regions with the lowest hospitalization rates for chronic obstructive pulmonary disease, diabetes, lower respiratory disease, and respiratory disease.
- 7<sup>th</sup> lowest all-cause potential years of life lost rate.
- 4<sup>th</sup> highest percentage of residents who were able to see their provider the same day or next day when they were sick.

### Challenges/Opportunities

- 8<sup>th</sup> highest percentage of households with an insufficient number of bedrooms to accommodate household size.
- 6<sup>th</sup> highest percentage population living below the low-income measure.
- 5<sup>th</sup> highest percentage of seniors (65+) living in low-income households.
- **Highest** percentage of residents spending 30% or more of household income on rent or payments of all Ontario sub-regions.
- 7<sup>th</sup> highest "small for gestation age" rate in the province.

## WESTERN YORK REGION SUB-REGION HIGHLIGHTS

### Population Characteristics

- 2<sup>nd</sup> highest population. This sub-region's population was larger than that of the **North West**, **North Simcoe Muskoka**, and **South East** LHINs.
- 4<sup>th</sup> lowest all-cause mortality rate.
- 4<sup>th</sup> lowest percentage of residents who reported English as their mother tongue.
- 8<sup>th</sup> lowest percentage of residents who reported French as their mother tongue.
- 8<sup>th</sup> lowest percentage of residents who reported no knowledge of English or French.
- **Lowest** percentage of residents reporting Aboriginal identity of all 76 sub-regions.
- 5<sup>th</sup> lowest percentage of people age 65+ living alone.
- 2<sup>nd</sup> lowest fertility rate among teenagers in the province.
- Compared to Ontario, self-perceived mental health was significantly more prevalent in the **Western York Region** sub-region.
- Among the lowest acute separation rates from acute hospital beds in 2016/17.
- Among the lowest rates of acute care days per 1,000 residents in 2016/17.

### Strengths

- 2<sup>nd</sup> lowest percentage of dwellings in need of major repairs.
- Compared to Ontario, *very good or excellent* self-reported health was significantly more prevalent in the **Western York Region** sub-region.
- Overweight or obesity rates were **significantly lower** than Ontario.
- **Significantly lower** prevalence rates for arthritis and hypertension than Ontario.
- **Significantly lower** prevalence rate for asthma and diabetes than Ontario. *Note: The reported rates have high sampling variability, the rates must be used with caution.*
- Among the 8 sub-regions with the lowest hospitalization rates for cardiovascular disease, cerebrovascular disease, chronic obstructive pulmonary disease, diabetes, lower respiratory disease, and respiratory disease.
- Among the 8 sub-regions with the lowest mean cost per healthcare user.
- Among the 8 sub-regions with the lowest mean cost per complex patient.
- Among the 8 sub-regions with the lowest percentage of high cost healthcare users.
- Residents of the **Western York Region** sub-region were among the 8 lowest ranked Ontario sub-regions for the rate of acute separations.
- Among the lowest ranking Ontario sub-regions for the rate of acute days.
- **Lowest** all-cause potential years of life lost rate.
- Western York Region residents had the 4<sup>th</sup> lowest ED visit rates for MH/SA conditions.
- Residents of **Western York Region** had the 3<sup>rd</sup> lowest mental health active case rate per 100,000 population age 15+.
- In 2017/18, residents of **Western York Region** tied for the 2<sup>nd</sup> shortest wait before being discharged from hospital with an ALC designation (closed cases).
- At the end of 2017/18, residents of **Western York Region** had had the 6<sup>th</sup> shortest wait to date for discharge from an ALC designation (open cases).

### Challenges/Opportunities

- **Western York Region** was not significantly different from the rest of Ontario in any areas of challenge or opportunity.

## EASTERN YORK REGION SUB-REGION HIGHLIGHTS

### Population Characteristics

- 3<sup>rd</sup> lowest percentage of residents who reported English as their mother tongue.
- 6<sup>th</sup> lowest percentage of residents who reported French as their mother tongue.
- 2<sup>nd</sup> highest percentage of residents who reported no knowledge of English or French.
- 4<sup>th</sup> highest percentage residents who were immigrants.
- 5<sup>th</sup> highest percentage of residents who were first generation Canadian.
- 3<sup>rd</sup> highest percentage of residents who were visible minorities.
- 3<sup>rd</sup> lowest percentage of residents reporting Aboriginal identity.
- 2<sup>nd</sup> lowest percentage of people age 65+ living alone.
- 7<sup>th</sup> lowest percentage of residents with post-secondary education below bachelor's degree.
- 6<sup>th</sup> lowest all-cause mortality rate per 100,000 population.
- **Lowest** fertility rate among teenagers in the province.
- 2<sup>nd</sup> lowest large for gestational age rate in the province.
- Among the eight sub-regions with the lowest total home service visit rates in 2017/18.
- Among the eight sub-regions with the highest nursing visit rates in 2017/18.
- 3<sup>rd</sup> highest percentage of residents who died in hospital.
- 7<sup>th</sup> highest percentage of patients who receive palliative care who died in hospital in 2016/17.
- 8<sup>th</sup> highest percent of residents with one or more unplanned ED visits in the last 30 days of life.
- Among the lowest acute separation rates from acute hospital beds in 2016/17.
- Among the lowest rates of acute care days per 1,000 residents in 2016/17.
- Residents of **Eastern York Region** had the 6<sup>th</sup> lowest mental health active case rate per 100,000 population age 15+.

### Strengths

- 3<sup>rd</sup> lowest percentage of dwellings in need of major repairs.
- Overweight or obesity rates were **significantly lower** than Ontario in **Eastern York Region**.
- **Significantly lower** prevalence rate for arthritis, than Ontario.
- Among the 8 sub-regions with the lowest hospitalization rates for asthma, cardiovascular disease, cerebrovascular disease, chronic obstructive pulmonary disease, diabetes, ischemic heart disease, lower respiratory disease, and respiratory disease.
- Among the 8 sub-regions with the lowest mean cost per healthcare user.
- Among the 8 sub-regions with the lowest percentage of complex patients (4+ conditions).
- Among the 8 sub-regions with the lowest percentage of high cost healthcare users.
- Residents of the **Eastern York Region** sub-region were among the 8 lowest ranked Ontario sub-regions for the rate of acute separations per 1,000 residents.
- Among the lowest ranking Ontario sub-regions for the rate of acute days per 1,000 residents.
- 2<sup>nd</sup> lowest all-cause potential years of life lost rate.
- 8<sup>th</sup> highest percentage of residents who were able to see their provider the same day or next day when they were sick.
- Eastern York Region residents had the **lowest** ED visit rates for MH/SA conditions.

### Challenges/Opportunities

- 8<sup>th</sup> highest percentage of participants in the labour force with a commuting duration of 60 minutes and over.

## SOUTH SIMCOE SUB-REGION HIGHLIGHTS

### Population Characteristics

- According to the census, **South Simcoe** had the 3<sup>rd</sup> highest increase in population between 2011 and 2016.
- 5<sup>th</sup> highest crude birth rate in the province.
- 6<sup>th</sup> highest fertility rate in the province.
- 5<sup>th</sup> lowest percentage of residents who died in hospital.

### Strengths

- **South Simcoe** was not significantly different from the rest of Ontario in any areas of strength.

### Challenges/Opportunities

- 2<sup>nd</sup> highest pre-term birth rate in the province.
- Overweight or obesity rates were **significantly higher** in **South Simcoe** than Ontario.
- 4<sup>th</sup> highest percentage of participants in the labour force with a commuting duration of 60 minutes and over.
- 6<sup>th</sup> lowest percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days (tied with **Kingston**).

## NORTHERN YORK REGION SUB-REGION HIGHLIGHTS

### Population Characteristics

- 8<sup>th</sup> highest percentage of residents participating in the labour force.
- 7<sup>th</sup> lowest percentage of patients who receive palliative care who died in hospital in 2016/17.

### Strengths

- **Significantly lower** prevalence rate for diabetes than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- 6<sup>th</sup> lowest percentage of residents who went to ED for something that could have been treated by a primary care provider.
- Among the 8 sub-regions with the lowest hospitalization rates for cardiovascular disease and for ischemic heart disease.

### Challenges/Opportunities

- 3<sup>rd</sup> highest percentage of residents who went to a walk in clinic for something that could have been treated by provider if they were available
- 6<sup>th</sup> highest percentage of participants in the labour force with a commuting duration of 60 minutes and over.

## Population Characteristics

### Population Estimates<sup>2</sup>

- As of 2016, the population of the Central LHIN is estimated to be 1,893,948, a 7.7% increase over 2011.
- The Central LHIN had the **highest** population in the province in 2016.
  - The populations 65 and over and 75 and over represent 15% and 7% of the total population respectively.
- The population of the Central LHIN is projected to increase by 9.3% by 2021 and by 13.2% by 2026.

### Population Estimates from 2016 Census and Ministry of Finance

	Ontario	Central	Comments†
2011 Census, total population	12,851,821	1,703,681	
2016 Census, total population	13,448,494	1,812,964	
Population growth between 2011 and 2016 (based on Census)	4.6%	6.4%	
Estimated population, 2011	13,263,544	1,758,875	
<b>Estimated population, 2016</b>	<b>13,982,984</b>	<b>1,893,948</b>	<b>Highest</b>
% population age 65+	16.38%	14.84%	
% population age 75+	7.17%	6.49%	
<b>% population change estimated 2011-2016</b>	<b>5.4%</b>	<b>7.7%</b>	
Projected population, 2021	14,980,422	2,069,378	
Projected population, 2026	15,822,463	2,228,887	
% changes (based on changes from the 2016 estimates)			
% population change forecasted 2016-2021	7.1%	9.3%	
% population change forecasted 2016-2026	13.2%	17.7%	

Sub-Region Name	Total population	Age 65plus	% 65+	Age 75plus	% 75+
North York West	291,203	42,548	14.61%	20,309	6.97%
North York Central	399,930	62,734	15.69%	30,274	7.57%
Western York Region	519,746	73,475	14.14%	30,314	5.83%
Eastern York Region	383,154	59,103	15.43%	23,535	6.14%
South Simcoe	76,938	11,722	15.24%	4,855	6.31%
Northern York Region	222,977	31,426	14.09%	13,594	6.10%

<sup>2</sup> Please see note in Ontario chapter on Census versus Ministry of Finance estimates.

### Census Demographics

- 16.7% of the population was in the age group 0-14 and 67.9% was in the age group 15-64.
- The dependency ratio in Central at 62.6 was lower than the province (64.5).
- The largest proportion of Central's population (88.1%) lived in large urban communities.
- 8.1% of Central's population lived in medium/small population centre communities.
- 3.2% of Central's population lived in rural or small communities adjacent to urban areas communities.
- The smallest proportion of Central's population (0.6%) lived in rural and small town communities.
- Central's land mass measures 2,731 square kilometres making it the 4<sup>th</sup> smallest LHIN in the province.
- Central's population density was 663.9 persons per square kilometre making it the 3<sup>rd</sup> most densely populated LHIN in the province.

### Households

- In 2016, 266,265 households contained one or more family members aged 65 years and over. 18.1% of those individuals were living alone.
  - By sub-region, **North York Central** had the highest rate of seniors living alone (25.1%) and **Eastern York Region** had the lowest (11.1%).
  - By sub-region and household size, **North York Central** had the highest rate of one person households (28.3%) and **Eastern York Region** had the lowest (13.6%).
  - By sub-region and household size, **Eastern York Region** had the highest rate of 5 or more person households (16.9%) and **North York Central** had the lowest (8.1%).
- In 2016, 357,525 families with children were living within the boundaries of the Central LHIN. 24.9% of those families were lone parent.
  - By sub-region, **North York West** had the highest rate of lone-parent families (42.6%) and **Western York Region** had the lowest (18.0%)
- The total number of private households was 626,200. 72.6% of those were owner occupied, 27.4% were rented, and less than 0.1% were band housing.
  - By sub-region and owner occupation rate, **Western York Region** had the highest rate (86.6%) with **North York West** being the lowest (49.1%).
- The total number of owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio was 621,485. 34.3% of those households spent 30% or more of their income on rent or payments.
  - By sub-region, **North York Central** had the highest rate (41.7%) and **South Simcoe** had the lowest (23.7%).
- 4.6% of the private households in the Central were in need of major repair.
  - By sub-region and housing in need of repair rate, **North York West** had the highest rate (8.8%) and **Western York Region** and **Eastern York Region** had the lowest (2.7%).
- 9.1% of the private households in the Central West LHIN had an insufficient number of bedrooms to accommodate the household makeup.
  - By sub-region and housing suitability, **North York West** had the highest rate of unsuitable housing (19.2%) and **South Simcoe** having the lowest (3.2%).



## Language

- 50% of the population reported English as their mother tongue, the lowest proportion in the province. 1.2% of the population reported French as their mother tongue.
  - By sub-region, **South Simcoe** had the highest proportion (80.5%) and **North York Central** had the lowest proportion of residents who identified English as their mother tongue (40.9%).
  - By sub-region, **North York Central** and **Northern York Region** had the highest proportion (1.5%) of residents who identified French as their mother tongue. **North York West** sub-region and **Eastern York Region** sub-region both had the lowest proportion (1.0%).
- In 2016, 1.7% of Central LHIN residents were Francophone under the 2009 new Inclusive Definition of Francophone.
  - By sub-region, **North York Central** had the highest proportion of Francophone residents (2.3%). **North York West** and **Eastern York Region** both had the lowest proportion of Francophone residents (1.4%).
- 5.4% of the LHIN's population reported no knowledge of either official language.
  - By sub-region, **Eastern York Region** reported the highest proportion of residents with no knowledge of English or French (9.1%) and **South Simcoe** had the lowest (1.2%).
- 60.3% of the LHIN's population reported English as the most common language spoken at home, followed by English and a non-official language (9.2%), Cantonese (5.7%), Mandarin (5.3%), and Persian/Farsi (2.5%).

## Income

- In the Central LHIN, 15.8% of the population lived on low income, based on the after-tax low income measure (LIM-AT). As a whole, the Central LHIN had the **highest** proportion with low income (29.3%) among the 14 LHINs.
  - The proportion of residents living below the low income measure varied by sub-region, from 8.3% in the **South Simcoe** sub-region to 22.6% in the **North York West** and the **North York Central** sub-regions.
  - The proportion of households in the lowest income quintile ranged across sub-regions in the Central LHIN, from 12.3% in the **South Simcoe** sub-region to 31.0% in the **North York West** sub-region.
- In the Central LHIN, 19.8% of children under the age of 6 lived in low income households.
  - By sub-region, children living in low income households ranged from 11.1% in the **South Simcoe** sub-region to 36.2% in the **North York West** sub-region.
- The proportion of households in the highest income quintile varied across sub-regions in the Central LHIN, from 10.1% in the **North York West** sub-region to 30.5% in the **Western York Region** sub-region.

## Immigration

- In 2016, immigrants accounted for 49.3% of the Central LHIN population, the highest proportion in the province. From 1980 to 2016, 55.0% of immigrants were admitted as economic immigrants, 29.3% were sponsored by family and 14.1% were admitted as refugees. 6.5% of Central LHIN residents were **recent immigrants**, having arrived in Canada between 2011 and 2016. This was the highest proportion of recent immigrants in the province. Of the recent immigrants, the highest proportion came from China (24.3%), followed by the Philippines (15.2%) and Iran (12.8%).
  - Among the six Central LHIN sub-regions, the percentage of immigrants ranged from 19.8% in **South Simcoe** to 58.0% in **North York Central**.
  - The percentage of recent immigrants ranged from 1.6% in **South Simcoe** to 11.4%. **North York Central**.

- In 2016, 52.1% of the Central LHIN population were **first generation Canadians**, the **highest** proportion in the province.
  - Among the six Central LHIN sub-regions, the percentage of first generation Canadians ranged from 20.5% in **South Simcoe** to 63.8% in **North York Central**.

### Visible Minorities

- In 2016, 51.9% of the Central LHIN population was a visible minority, the second highest proportion in the province.
  - Among the six Central LHIN sub-regions, the percentage of visible minorities ranged from 12.6% in **South Simcoe** to 72.9% in **Eastern York Region**.

### Indigenous (Aboriginal) Identity

- 0.6% of the Central LHIN's residents identified as Aboriginal (the lowest proportion in the province), with 0.4% identifying as First Nations and 0.2% as Métis.
  - Among the six Central LHIN sub-regions, the percentage of residents reporting Aboriginal identity ranged from 0.2% of **Western York Region** to 2.0% of **South Simcoe**.

### Education

- In 2016, 40.5% of residents of the Central LHIN of working age had completed post-secondary education, ranking 3<sup>rd</sup> across the province.
  - Across Central sub-regions, the percentage of the population with less than high school ranged from 4.8% in **North York Central** to 20.2% in **North York West**.
  - The percentage of the population with high school completion ranged from 16.8% in **North York Central** to 30.6% in **South Simcoe**.
  - The percentage of the population with post-secondary education below bachelor's degree ranged from 24.0% in **North York Central** to 38.1% in **South Simcoe**.
  - The percentage of the population with bachelor's degree completion and beyond ranged from 17.9% in **South Simcoe** to 54.5% in **North York Central**.

### Labour Force Participation

- In 2016, Central LHIN residents aged 15+ had a workforce participation rate of 65% and an unemployment rate of 7.3%.
- Of those employed in 2016, 60% (the **highest** of all of the LHINs) of Central LHIN residents had a commute time from their residence to their place of work of 30 minutes or more, while 33.4% (the **highest** of all of the LHINs) had a commute time of 45 minutes or more.

2016 Census Profile	Ontario	Central	Comments†
<b>Census Population 2016</b>			
Dependency ratio (number of "dependents" for every 100 "workers")	64.5	62.6	
<b>Urban-Rural Gradient</b>			
% large urban	68.1%	88.1%	
% medium/small population centre	14.7%	8.1%	
% rural or small communities adjacent to urban areas	8.4%	3.2%	
% rural and small town	8.8%	0.6%	
Land Area (sq km)	908,699	2,731	
Population Density (persons per square kilometre)	14.8	663.9	
<b>Population by Household and Families</b>			
% of people age 65+ living alone	23.5%	18.1%	2 <sup>nd</sup> lowest
% of dwellings in need of major repairs	6.1%	4.6%	
% of households with an insufficient # of bedrooms	6.0%	9.1%	
<b>Language</b>			
% who report English as their mother tongue	69.5%	50.0%	2 <sup>nd</sup> lowest
% who report French as their mother tongue	4.3%	1.2%	2 <sup>nd</sup> lowest
% with no knowledge of English or French	2.5%	5.4%	Highest
% Francophone (IDF)	4.7%	1.7%	
<b>Population (in Private Households) Living in Low Income</b>			
% Population living below low-income measure (LIM-AT)	14.4%	15.8%	
% Children living in low income households/LIM (age<6)	19.8%	19.8%	
% Children living in low income households/LIM (age<18)	18.4%	19.2%	
% Seniors living in low income households/LIM (age 65+)	12.0%	13.9%	2 <sup>nd</sup> highest
<b>Immigration</b>			
% of population who are immigrants	29.1%	49.3%	Highest
% of population who arrived within 5 years	3.6%	6.5%	Highest
% first generation Canadian (children of immigrants)	31.1%	52.1%	Highest
<b>Visible Minorities</b>			
% of population who are visible minorities	29.3%	51.9%	2 <sup>nd</sup> highest
<b>Indigenous Identity</b>			
% of population of Aboriginal identity	2.8%	0.6%	Lowest
% population First Nations identity	1.8%	0.4%	
% population Metis identity	0.9%	0.2%	
% population Inuk identity	0.0%	0.0%	
% Multiple Aboriginal responses	0.0%	0.0%	
% Aboriginal responses not included elsewhere	0.1%	0.0%	
<b>Educational Attainment</b>			
% Population age 25-64 with less than high school	10.4%	9.5%	
% Population age 25-64 with high school completion	24.5%	21.9%	
% Population age 25-64 with post-secondary education below bachelor's degree	33.2%	28.2%	2 <sup>nd</sup> lowest
% Population age 25-64 with bachelor's degree completion and beyond	31.9%	40.5%	
<b>Labour Force Activity</b>			
% In the labour force (Participation rate)	64.7%	64.8%	
% Unemployed	7.4%	7.3%	
% 60 minutes and over commuting duration	12.4%	19.4%	2 <sup>nd</sup> highest

†Highest/lowest ranking in the province, compared to other LHINs.

## Sub-Region Profiles, 2016 Census

Sub-Region	North York West	North York Central	Western York Region	Eastern York Region	South Simcoe	Northern York Region
<b>Census Population 2016</b>						
Dependency ratio (number of "dependents" for every 100 "workers")	64.8	58.0	64.4	63.6	65.6	61.9
<b>Urban-Rural Gradient</b>						
% large urban	100.0%	100.0%	94.2%	87.5%	0.0%	72.1%
% medium/small population centre	0.0%	0.0%	2.9%	9.6%	70.9%	18.7%
% rural or small communities adjacent to urban areas	0.0%	0.0%	2.9%	2.9%	16.6%	9.1%
% rural and small town	0.0%	0.0%	0.0%	0.0%	12.5%	0.0%
Land Area (sq km)	80	86	665	419	845	636
Population Density (persons per square kilometre)	3,339.7	4,452.1	743.8	895.4	96.3	329.3
<b>Population by Household and Families</b>						
% of people age 65+ living alone	23.3%	25.1%	13.6%	11.1%	17.8%	19.6%
% Of dwellings in need of major repairs	8.8%	5.4%	2.7%	2.7%	4.1%	4.5%
% of households with an insufficient # of bedrooms	19.2%	12.8%	5.0%	6.3%	3.2%	3.4%
<b>Language</b>						
% who report English as their mother tongue	49.5%	40.9%	46.6%	42.7%	80.5%	77.3%
% who report French as their mother tongue	1.0%	1.5%	1.1%	1.0%	1.4%	1.5%
% with no knowledge of English or French	5.9%	5.1%	4.7%	9.1%	1.2%	1.6%
% Francophone	1.4%	2.3%	1.6%	1.4%	1.6%	1.8%
<b>Population (in Private Households) Living in Low Income</b>						
% Population living below low-income measure (LIM-AT)	22.6%	22.6%	11.7%	14.3%	8.3%	9.7%
% Children living in low income households/LIM (age<6)	36.2%	25.2%	13.2%	17.2%	11.1%	12.5%
% Children living in low income households/LIM (age<18)	33.9%	26.8%	13.3%	16.9%	11.5%	12.2%
% seniors living in low income households/LIM (age 65+)	16.2%	18.5%	12.3%	12.2%	7.9%	9.3%
<b>Population by Income Quintiles</b>						
% Economic families in Income quintile 1 - lowest income	31.0%	28.7%	15.6%	19.6%	12.3%	13.6%
% Economic families in Income quintile 2	25.1%	17.8%	14.9%	17.1%	17.9%	15.1%
% Economic families in Income quintile 3	18.9%	15.8%	17.0%	17.4%	22.1%	18.5%
% Economic families in Income quintile 4	14.9%	15.5%	22.0%	20.2%	25.3%	23.6%

	North York West	North York Central	Western York Region	Eastern York Region	South Simcoe	Northern York Region
<b>Sub-Region</b>						
% Economic families in Income quintile 5 - highest income	10.1%	22.2%	30.5%	25.8%	22.4%	29.3%
<b>Immigration</b>						
% of population who are immigrants	54.9%	58.0%	49.9%	55.5%	19.8%	24.4%
% of population who arrived within 5 years	7.8%	11.4%	4.9%	5.8%	1.6%	2.3%
% first generation Canadian (children of immigrants)	58.1%	63.8%	51.8%	57.8%	20.5%	25.3%
<b>Visible Minorities</b>						
% of population who are visible minorities	60.8%	59.5%	44.9%	72.9%	12.6%	20.5%
<b>Indigenous Identity</b>						
% of population of Aboriginal identity	0.6%	0.4%	0.2%	0.3%	2.0%	1.7%
% population First Nations identity	0.4%	0.2%	0.1%	0.2%	1.2%	1.0%
% population Metis identity	0.2%	0.1%	0.1%	0.1%	0.7%	0.6%
% population Inuk identity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Multiple Aboriginal responses	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Aboriginal responses not included elsewhere	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
<b>Educational attainment</b>						
% Population age 25-64 with less than high school	20.2%	4.8%	6.8%	10.1%	13.5%	8.6%
% Population age 25-64 with high school completion	27.7%	16.8%	19.9%	22.1%	30.6%	25.0%
% Population age 25-64 with post-secondary education below bachelor's degree	30.8%	24.0%	28.1%	24.9%	38.1%	35.5%
% Population age 25-64 with bachelor's degree completion and beyond	21.4%	54.5%	45.3%	42.9%	17.9%	31.0%
<b>Labour Force Activity</b>						
% In the labour force (Participation rate)	60.3%	61.3%	67.5%	63.8%	69.6%	70.5%
% Unemployed	9.6%	8.5%	6.2%	7.0%	6.0%	6.3%
% 60 minutes and over commuting duration	20.6%	17.8%	18.3%	20.1%	22.0%	21.0%

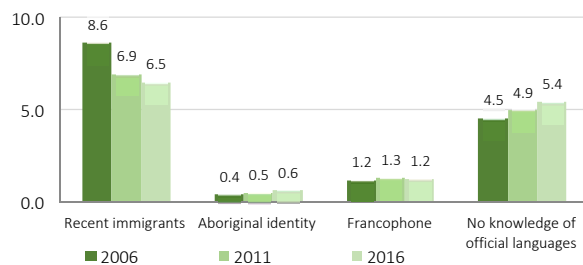
## Central

### 2016 Census Profile Summary

#### Number of private dwellings

2006	541,671
2011	597,744
2016	652,473

#### Immigration, identity and language (% of population)

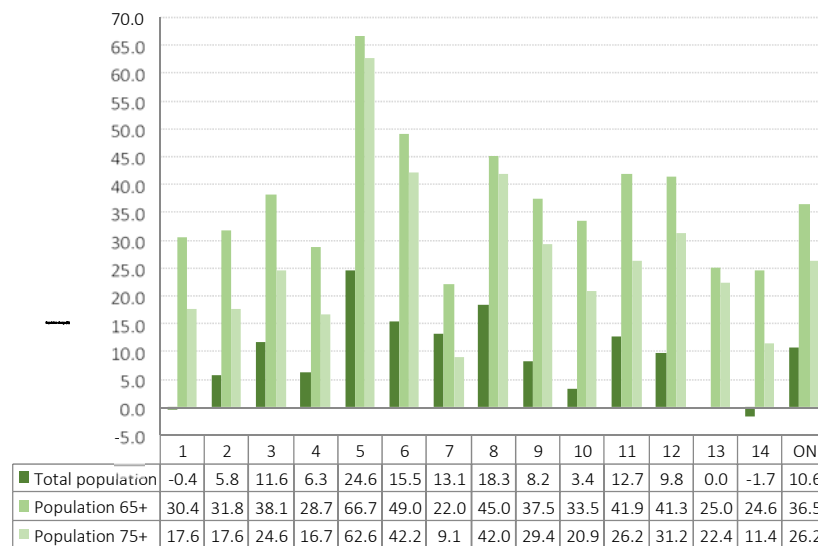


#### Population change (2006-2016)

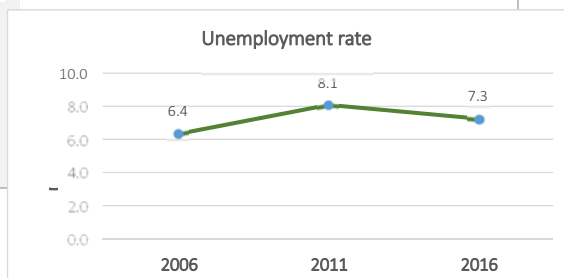
The growth of the senior (65+) population across LHINs ranged from 67% in Central West to 22% in Toronto Central.

The growth of the population age 75+ in Central between 2006 and 2016 was 42%, compared to 26.2% for the province as a whole. Total LHIN population growth was 18.3% for the same period.

#### Population change, 2006 to 2016, by LHIN

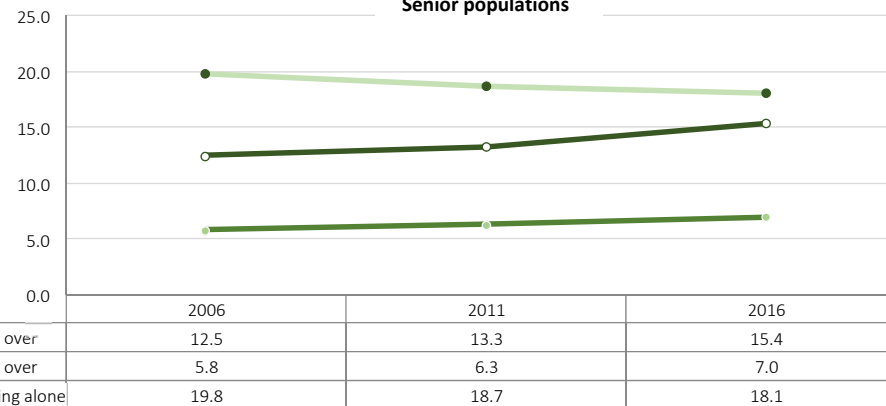


#### Change in unemployment rate, 2006 to 2016 = 14.7%



○ % population age 65 and over	12.5	13.3	15.4
■ % population age 75 and over	5.8	6.3	7.0
● % population age 65+ living alone	19.8	18.7	18.1

#### Senior populations



## Births and Mortality

### Births and Maternal Age

- In FY 2016/17, there were 18,554 pregnancies and 18,828 births to Central women. 98% of births took place in a hospital; the remaining 2% were in the home, birth centre or other (including nursing stations, births outside of Ontario and other Ontario locations).
- In 2016, the crude birth rate (per 1,000 population) in Central was 9.7.
  - By sub-region, **South Simcoe** had the 5<sup>th</sup> highest rate in the province (13.0).
- The fertility rate per 1,000 Central females of reproductive age (15 to 49) was 38.8.
  - By sub-region, **South Simcoe** had the 6<sup>th</sup> highest rate in the province (55.8).
- For teenagers (15 to 19), the fertility rate per 1,000 Central females was 2.5, the 2<sup>nd</sup> lowest in the province.
  - By sub-region, **Eastern York Region** and **Western York Region** had the **lowest** and 2<sup>nd</sup> lowest fertility rate among teenagers in the province (0.6 and 0.8, respectively).
- In FY2016, 0.9% of women who gave birth were under 20 years of age. 28.6% of women were 35 years or older.
- In 2016, the overall mean age of mothers giving birth in this LHIN was 31.9.
  - By sub-region, **North York Central** had the 7<sup>th</sup> highest overall mean age of mothers giving birth (tied with **East Toronto** and **South Etobicoke**) in the province (32.4).
- In 2016, the stillbirth rate per 1,000 live births in Central was 6.7, the **lowest** rate in the province.

### Multiple Births

- The multiple live birth rate per 100 live births in 2016 was 2.9.

### Pre-Term Births

- In 2016, the pre-term birth rate per 100 live births was 7.7.
  - By sub-region, **South Simcoe** and **North York West** had the 2<sup>nd</sup> and 7<sup>th</sup> highest pre-term birth rate in the province (10.0 and 9.4 per 100 births, respectively).

### Size for Gestational Age and Birth Weight

- The low birth weight rate per 100 live births in Central was 6.9.
  - By sub-region, **North York West** had the 5<sup>th</sup> highest low birth weight rate in the province (8.9).
- In 2016, the small for gestational age rate per 100 live births was 11.2, the 2<sup>nd</sup> highest in the province.
  - By sub-region, **North York West** and **North York Central** had the 5<sup>th</sup> and 7<sup>th</sup> highest small for gestational age rates in the province (13.3 and 12.6, respectively)
- In 2016, the large for gestational age rate per 100 live births was 7.2, the 2<sup>nd</sup> lowest rate in the province.
  - By sub-region, **Eastern York Region** and **North York Central** had the 2<sup>nd</sup> and 5<sup>th</sup> lowest large for gestational age rate in the province (5.7 and 6.4, respectively).

### Attendants, Assisted Delivery & Epidural Anaesthesia during Labour

- In Central, 88.4% of hospital births were attended by an obstetrician. 3.6% were attended by a family doctor, and 5.4% were attended by a midwife, the 2<sup>nd</sup> lowest proportion in the province.
- Among vaginal deliveries, the overall assisted delivery rate for Central women was 13.3. Assisted delivery rate using vacuum extraction was 9.4 and using forceps was 3.4.
- The epidural rate for vaginal deliveries was 60.7. Epidural rate for all deliveries was 50.1.

### Caesarean Deliveries

- In FY 2016/17, the total Caesarean section rate per 100 deliveries was 29.1.

- The rate of primary Caesarean section rate (the mother's first Caesarean, regardless if she had given birth vaginally before) was 19.2 per 100 deliveries. Primary Caesarean section rate was lower in women under 35 years of age (17.3) compared to those 35 and over (24.0).
- The rate of repeat Caesarean sections in Central was 85.8 per 100 deliveries.

#### **Breastfeeding**

- The rate of exclusive breastfeeding at discharge among term live births in this LHIN was 56.7%, the 2<sup>nd</sup> lowest rate in the province.



## Births and Maternal Outcomes, Ontario

	Central	Ontario	Comments <sup>†</sup>
<b>Total births in Ontario, LHIN of maternal residence</b>	18,828	141,163	
Hospital	18,537	136,505	
Home	237	3,813	
Birth Centre	32	572	
<b>Crude birth rate (per 1,000 population)</b>	9.7	9.8	
<b>Stillbirth rate (per 1,000 live births)</b>	6.7	8.1	Lowest
<b>Multiple live birth rate (per 100 live births)</b>	2.9	3.3	
<b>Rate of preterm birth (&lt;37 weeks) (%)<sup>*</sup></b>	7.7%	8.2%	
<b>Preterm birth rate (per 100 live births)<sup>**</sup></b>	7.7	8.1	
<b>Total pregnancies in Ontario, LHIN of maternal residence</b>	18,554	138,781	
<b>Fertility rate (per 1,000 females of reproductive age)</b>			
Overall rate (15 to 49)	38.8	41.2	3 <sup>rd</sup> lowest
Teen rate (15 to 19)	2.5	6.3	2 <sup>nd</sup> lowest
<b>Distribution of maternal age (%)</b>			
<20	0.9%	1.9%	3 <sup>rd</sup> lowest
≥ 35	28.6%	23.8%	3 <sup>rd</sup> highest
<b>Mean age of mother at birth of first infant</b>	30.4	29.3	3 <sup>rd</sup> highest
<b>Overall mean age of mother at birth</b>	31.9	30.7	3 <sup>rd</sup> highest
<b>Rate of Caesarean delivery (%), LHIN of hospital</b>	27.6%	28.4%	
<b>Total Caesarean Section Rate</b>	29.1	28.4	
<b>Primary Caesarean Section Rate, LHIN of patient</b>	19.2	19.0	
Primary C-Section Rate (< 35 years)	17.3	17.9	
Primary C-Section Rate (≥ 35 years)	24.0	22.9	3 <sup>rd</sup> highest
<b>Repeat Caesarean Section Rate</b>	85.8	82.7	
<b>Epidural Rate for Vaginal Deliveries</b>	60.7	60.3	
<b>Epidural Rate for All Deliveries</b>	50.1	51.0	
<b>Assisted Delivery Rate Among Vaginal Deliveries</b>			
Overall	13.3	12.3	
Vacuum Extraction	9.4	9.1	
Forceps	3.4	2.8	
<b>Healthcare provider who caught the baby for hospital births (%), LHIN of hospital</b>			
Obstetrician	88.4%	78.8%	3 <sup>rd</sup> highest
Family doctor	3.6%	7.4%	3 <sup>rd</sup> lowest
Midwife	5.4%	7.4%	2 <sup>nd</sup> lowest
Other	2.5%	6.4%	
<b>Low birth weight rate (per 100 live births)</b>	6.9	6.8	
<b>Fullterm low birth weight rate (per 100 live births)</b>	2.2	2.0	
<b>Births small for gestational age (%)<sup>*</sup></b>	11.0%	9.7%	3 <sup>rd</sup> highest
<b>Small for gestational age (per 100 live births)<sup>**</sup></b>	11.2	9.6	2 <sup>nd</sup> highest
<b>Births large for gestational age (%)<sup>*</sup></b>	7.1%	9.7%	2 <sup>nd</sup> lowest
<b>Large for gestational age (per 100 live births)<sup>**</sup></b>	7.2	9.8	2 <sup>nd</sup> lowest
<b>Rate of exclusive breastfeeding among term live hospital births (%), LHIN of maternal residence<sup>‡</sup></b>	56.7%	62.8%	2 <sup>nd</sup> lowest

<sup>‡</sup>Results for exclusive breastfeeding for Central West, Toronto Central, Central, Central East, Unknown LHINs and Ontario should be interpreted with caution due to the large percentage of missing values.

<sup>†</sup>Ranking in the province compared to other LHINs.

<sup>\*</sup> As reported by BORN Ontario

<sup>\*\*</sup> As reported by Public Health Ontario

### Maternal smoking, alcohol and drug use during pregnancy among all women who live in Ontario and who had a live birth or stillbirth (LHIN of maternal residence), 2016/17 (BORN)

- In Central, the rate of women who self-identified as non-smokers at first prenatal visit was 97.0%, the **highest** proportion in the province. At the time of labour, 97.7% were non-smokers, the **highest** proportion in the province.
  - The prevalence of smoking 1-10 cigarettes and 10+ cigarettes at the first prenatal visit was 1.9% and 0.7%, respectively.
- 1.4% of the women reported drinking alcohol, the 2<sup>nd</sup> lowest proportion in the province. 0.7% reported using drugs during pregnancy, the **lowest** proportion in the province.

	Central	Ontario	Comments <sup>†</sup>
<b>Maternal smoking at first prenatal visit (%) LHIN of maternal residence‡</b>			
% women who reported smoking (0) cigarettes/day	97.0%	90.7%	<i>Highest</i>
% women who reported smoking (1 – 10) cigarettes/day	1.9%	5.5%	<i>Lowest</i>
% women who reported smoking (10+) cigarettes/day	0.7%	3.2%	<i>Lowest</i>
<b>Maternal smoking at time of labour (%)</b>			
% women who reported smoking (0) cigarettes/day	97.7%	92.5%	<i>Highest</i>
% women who reported smoking (1 – 10) cigarettes/day	1.5%	4.6%	<i>Lowest</i>
% women who reported smoking (10+) cigarettes/day	0.6%	2.6%	<i>Lowest</i>
<b>Alcohol consumption during pregnancy (%)</b>	1.4%	2.6%	<i>2<sup>nd</sup> lowest</i>
<b>Drug and substance exposure during pregnancy (%)</b>	0.7%	2.3%	<i>Lowest</i>

<sup>†</sup>Ranking in the province compared to other LHINs.

### Life Expectancy

- Life expectancy at birth for both males and females in 2012-2014 was 85 years, the **highest** rate amongst all the LHINs. By sex, life expectancy at birth for males in Central was 83 years, and 87 years for females, the **highest** in the province.
- Life expectancy at age 65 for both sexes from 2012-2014 was 23 years. By sex, life expectancy at age 65 for males in Central was 21 years. Life expectancy at age 65 for females from 2012-2014 was 24 years.

	Central LHIN	Ontario	Rank among LHINs <sup>†</sup>
<b>Life Expectancy</b>			
<b>Life expectancy at birth- Both Sexes 2012-14</b>	84.9	82.3	Highest
<b>Life expectancy at birth- Male 2012-14</b>	82.9	80.2	Highest
<b>Life expectancy at birth- Female 2012-14</b>	86.8	84.3	Highest
<b>Life expectancy at age 65- Both Sexes 2012-14</b>	22.7	20.9	
<b>Life expectancy at age 65- Male 2012-14</b>	21.1	19.3	2 <sup>nd</sup> highest
<b>Life expectancy at age 65- Female 2012-14</b>	24.1	22.2	

<sup>†</sup>Ranking in the province compared to other LHINs (highest and lowest 2).

### Mortality and Potential Years of Life Lost

- In 2012, 8,650 Central LHIN residents died.
- The all-cause mortality rate for LHIN residents was 483.5 per 100, 000 population in 2012.
  - By sub-region, **Western York Region** had the 4<sup>th</sup> lowest (373), and **Eastern York Region** had the 6<sup>th</sup> lowest (407) all-cause mortality rate per 100,000 population.
- 33% of the deaths in Central LHIN were premature (under age 75), the **lowest** amongst all the LHINs.
- Ischaemic heart disease was the leading cause of death in Central East, followed by Dementia and Alzheimer's disease and cancer of lung and bronchus.
- 50,757 years of potential life were lost by LHIN residents in 2012, the second lowest in the province.
  - By sub-region, **Western York Region** had the **lowest** (2,515), **Eastern York Region** had the 2<sup>nd</sup> lowest (2,602) and **North York Central** had the 7<sup>th</sup> lowest all-cause PYLL rate per 100,000 population (3,142).
- The LHIN's PYLL rate for 2012 was 3,014 per 100,000 population aged less than 75. Since 2007, the PYLL rate decreased by almost 7% for Central East LHIN residents.
- The leading causes of PYLL in 2012 were Ischaemic heart disease and perinatal conditions, both with the second lowest rates in the province (271 and 231, respectively).

## Mortality, Potential Years of Life Lost

	Central	Ontario	Rank among LHINs†	Range across Central LHIN sub-regions (2010-2012)
<b>Mortality, 2012</b>				
Total deaths, 2012	8,650	90,525		468-2,198
% change in total deaths (2007-2012)	9.5%	4.1%		NA
All-cause mortality rate per 100,000	483.5	674.9		372.6-648.5
% change in all-cause mortality rate (2007-2012)	0.2%	-0.7%		NA
% of deaths that were premature (age < 75)	33.8%	37.3%	Lowest	28.0%-38.3%
<b>Top 10 leading causes of death, 2012 (rates per 100,000 population)<sup>3</sup></b>				
Ischaemic heart disease	69.6	98.0		52.5-99.8
Dementia & Alzheimer's disease	43.9	55.6		34.0-57.8
Cancer of lung & bronchus	31.9	50.3		26.5-41.3
Cerebrovascular diseases	26.1	36.6		18.7-36.3
Chronic lower respiratory diseases	15.1	28.4	2 <sup>nd</sup> lowest	9.2-27.7
Cancer of colon, rectum, anus	16.2	23.4		14.5-23.6
Cancer of lymph, blood & related	15.8	20.0		11.9-20.7
Falls	13.9	17.4		10.7-19.9
Influenza & pneumonia	12.1	15.2		NA
Cancer of pancreas	10.9	12.2	2 <sup>nd</sup> lowest	NA
<b>Potential years of life lost (PYLL), 2012</b>				
Total PYLL, 2012	50,757	551,256	2 <sup>nd</sup> lowest	3,509-10,906
% change in PYLL (2007-2012)	1.6%	-0.6%		NA
PYLL rate per 100,000 population (age < 75)	3,014	4,405		2,514.9-4,481.5
% change in PYLL rate (2007-2012)	-6.9%	-5.0%		NA
<b>Top 10 leading causes of PYLL, 2012 (rates per 100,000 population, age &lt; 75)<sup>4</sup></b>				
Ischaemic heart disease	270.7	406.8	2 <sup>nd</sup> lowest	181.7-425.6
Cancer of lung & bronchus	194.0	322.6	2 <sup>nd</sup> lowest	157.7-313.8
Intentional self-harm	178.1	284.7		140.6-281.8
Perinatal conditions	231.0	253.3		158.6-419.0
Accidental poisoning	106.0	190.6		43.4-208.2
Transport accidents	127.7	171.8		76.8-242.9
Cancer of lymph, blood & related	122.6	149.1		NA
Congenital malformations, deformations, chromosomal abnormalities	106.8	149.0	2 <sup>nd</sup> lowest	43.7-249.1
Cancer of breast	127.2	147.0	2 <sup>nd</sup> lowest	113.9-150.5
Cancer of colon, rectum, anus	101.1	141.3		76.1-136.9

†Ranking in the province, compared to other LHINs.

<sup>3</sup> Mean rate from 2010-2012

<sup>4</sup> Mean rate from 2010-2012

## General Health, Risk Factors, and Prevention

### General Health

- In 2015-16, 60% of Central LHIN residents said they had very good or excellent health.
  - Compared to Ontario, very good or excellent health was significantly more prevalent in the **Western York Region** sub-region.
- 69% reported very good or excellent mental health. The proportion declined between 2005 and 2014 as it did in Ontario, overall.
  - Compared to Ontario, self-perceived mental health was significantly more prevalent in the **Western York Region** sub-region.
- 22% of Central residents reported that most days were “quite a bit” or “extremely” stressful.

### Prevention

- 90% of Central residents reported having a regular medical doctor in 2015-16.
- Only 30% of residents of Central LHIN indicated that they received a flu shot in the year preceding the survey. This rate declined 13% between 2005 and 2014.

### Risk Factors

- 14% of Central residents reported daily or occasional smoking in 2015-16, a **significantly lower** proportion than Ontario. The proportion of people (5%) exposed to second hand smoke in the home was the lowest among LHINs and also **significantly lower** than the Ontario rate of 7%.
- Only 11% of Central residents reported heavy drinking—the lowest among LHINs and **significantly lower** than the Ontario rate of 18%. Heavy drinking is defined as having consumed 5 or more drinks for males and 4 or more drinks for women on at least one occasion at least once a month during the past year.
- The majority-56%- of adult Central LHIN residents were either overweight or obese, though this rate is **significantly lower** than Ontario (61%). Overweight and obesity is rising over time in Central LHIN, as it is in Ontario.
  - Overweight or obesity rates were **significantly higher** than Ontario in the **South Simcoe** sub-region. Rates were **significantly lower**, however, in the **North York Central**<sup>6</sup>, **Eastern York Region**, and **Western York Region** sub-regions.
- 50% of Central residents were physically inactive—now defined as less than 150 minutes of moderate to vigorous activity per week. The Central LHIN rate was the highest among LHINs and **significantly higher** than for Ontario overall (42%).
  - At the sub-region level, the rate was **significantly higher** in **North York West**, compared to Ontario.
- 73% of Central residents did not consume enough fruits and vegetables (i.e., had fewer than 5 servings of fruits or vegetables daily).

---

<sup>5</sup> 2005 to 2014 rates are not directly comparable with those from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

<sup>6</sup> High coefficient of variation(20.2). Interpret with caution.

## General Health, Risk Factors, and Prevention; Central LHIN

	Central LHIN 2015-16	Ontario (2015-16)	Rank among LHINs <sup>†</sup> (2015-16)	Range across Central sub-regions (2011-14)*
<b>General Health</b>				
General health, % of the population age 12+ with...				
Very good or excellent self-perceived health	60%	61%		54-66%
Very good or excellent self-perceived mental health	69%	71%		66-78%
Days that are 'quite a bit' or 'extremely' stressful (age 15+)	22%	22%		
<b>Prevention</b>				
Use of Health Services and Preventive Care, % of the population age 12+ who...				
Have a regular medical doctor	90%	90%		88-94%
Have consulted with family doctor/general practitioner (past yr)	77%	74%	Highest	
Received flu shot in the past year	30%	33%		
<b>Risk Factors</b>				
Risk factors, % of the population age 12+ who...				
Are daily or occasional smokers	14% <sup>-1</sup>	17%	3 <sup>rd</sup> lowest	13-22% <sup>c</sup>
Are exposed to second-hand smoke in the home	4.5% <sup>-1</sup>	6.9%	Lowest	
Are heavy drinkers	11% <sup>-1</sup>	18%	Lowest	
Are overweight or obese (age 18+)	56% <sup>-1</sup>	61%	2 <sup>nd</sup> lowest	38-61%
Are overweight (age 18+)	33%	35%		27-39%
Are obese (age 18+)	23%	26%	3 <sup>rd</sup> lowest	11-30% <sup>c</sup>
Are physically inactive	50% <sup>1</sup>	42%	Highest	43-56%
Consume < 5 servings of fruits/vegetables daily	73%	72%		56-67%

\*2011-2014 sub-region rates are not directly comparable with LHIN and Ontario rates from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

<sup>†</sup>Top or bottom 3 ranking in the province, compared to other LHINs. Interpret with caution, rank based on point estimate, which may or may not be significantly different from Ontario. See significance flags for each measure below.

<sup>1</sup> LHIN is **significantly higher** than Ontario

<sup>-1</sup> LHIN is **significantly lower** than Ontario

<sup>c</sup> Estimates with high sampling variability (CV between 16.6 -33.3) must be used with caution.

## Chronic Conditions

### Prevalence, mortality, hospital separations and hospital days of stay for selected chronic conditions

- 34.6% of Central residents (aged 12+) reported having a one or more chronic conditions with 13% having two or more chronic conditions.
- Of note, the prevalence rate for residents with one or more chronic conditions was **significantly lower** than Ontario and was the 2<sup>nd</sup> lowest among the LHINs.
- Additionally, the prevalence rate for residents with two or more chronic conditions was **significantly lower** than Ontario (39.6%).
- Chronic conditions with the highest or lowest prevalence rates compared to other LHINs were as follows: Arthritis - **Lowest**; Asthma - 2<sup>nd</sup> lowest; COPD (35+) - 2<sup>nd</sup> lowest; High blood pressure - 2<sup>nd</sup> lowest; Heart disease - 2<sup>nd</sup> lowest
- The mean health care cost per user for Central residents in 2015/16 was \$2,350 (\$2,750 for Ontario). The Central LHIN was among the 3 LHINs with the lowest mean health care cost per user.
- 5.2% of the patients were complex (4+ conditions), 5.8% for Ontario.
- The mean healthcare cost of a complex patient was \$20,700 compared to \$22,050 for Ontario.
- 4.0% of the patients were high cost user patients, 5.0% for Ontario. The Central LHIN was among the 3 LHINs with the lowest proportion of high cost user patients.
- The mean healthcare cost per high cost user was \$37,600 compared to \$37,700 for Ontario.
- The hospitalization rate (per 100,000 population) for asthma in Central LHIN was 29.1 compared to 34.3 for Ontario. The Central LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for cardiovascular disease in Central LHIN was 750.6 compared to 916.9 for Ontario. The Central LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for cerebrovascular disease in Central LHIN was 117.4 compared to 133.2 for Ontario. The Central LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for chronic obstructive pulmonary disease in Central LHIN was 84.8 compared to 171.8 for Ontario. The Central LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for diabetes in Central LHIN was 64.2 compared to 100.2 for Ontario. The Central LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for ischemic heart disease in Central LHIN was 239 compared to 314.8 for Ontario. The Central LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for lower respiratory disease in Central LHIN was 116.6 compared to 208.9 for Ontario. The Central LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for respiratory disease in Central LHIN was 449 compared to 599.7 for Ontario. The Central LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for stroke in Central LHIN was 100.7 compared to 112.5 for Ontario. The Central LHIN was among the 3 LHINs with the lowest rates.

### Chronic Conditions, Complex Patients

Condition	Central	Ontario	Comment
<b>Self-reported prevalence (2015-16), rate per 100, age 12+</b>			
Arthritis	16.4	20.6	<i>Lowest</i>
Asthma	7.7	8.7	<i>2<sup>nd</sup> lowest</i>
Cancer	1.1 <sup>D</sup>	1.3	
Chronic Obstructive Pulmonary Disease (COPD) (age 35+)	2.2 <sup>D</sup>	4.0	<i>2<sup>nd</sup> lowest</i>
Diabetes	7.4	7.4	
High blood pressure	16.3	18.2	<i>2<sup>nd</sup> lowest</i>
Heart disease	3.4 <sup>C</sup>	4.6	<i>2<sup>nd</sup> lowest</i>
Suffer from effects of stroke	1.3 <sup>D</sup>	1.3	
Have a chronic condition	34.6	39.6	<i>2<sup>nd</sup> lowest</i>
Have multiple chronic conditions <sup>1</sup>	13.0	16.2	

C: 0.15<CV<=0.25 Marginal (Use with caution-high sampling variability)

D: 0.25<CV<=0.35 Marginal (Use with caution-high sampling variability)

1 - Of the selected conditions on this list

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>			
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	29.1	34.3	
Cardiovascular disease	750.6	916.9	
Cerebrovascular disease	117.4	133.2	
COPD	84.8	171.8	
Diabetes	64.2	100.2	
Hypertension	15.9	18.0	
Ischemic heart disease	239.0	314.8	
Lower respiratory disease	116.6	208.9	
Respiratory disease	449.0	599.7	
Stroke	100.7	112.5	
<b>Complex Patients and high cost users, 2015/16</b>			
Mean health care cost per user \$	\$ 2,350	\$ 2,750	
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$ 20,700	\$ 22,050	
# of patients that are complex	83,620	680,115	
% of all patients (health care users) that are complex	5.2%	5.8%	
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$ 37,600	\$ 37,700	
# of patients that are high cost users	63,465	581,670	
% of patients that are high cost users	4.0%	5.0%	



## NORTH YORK WEST SUB-REGION (801)

- The prevalence rate (per 100) for the population with asthma was 3.7 (Ontario - 7.8). **North York West** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The mean health care cost per user in **North York West** sub-region was \$3,000 (Ontario - \$2,750).
- 6.7% of patients from **North York West** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **North York West** sub-region was \$23,150 (Ontario - \$22,050).
- 5.0% of patients from **North York West** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **North York West** sub-region was \$41,950 (Ontario - \$37,700). It was among the 8 sub-regions with the highest mean cost per high cost user.

## Chronic Conditions, Complex Patients

Condition	North York West	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	14.4	17.3	60
Asthma	3.7	7.8	72
Diabetes	6.1	6.8	48
High blood pressure	18.4	18.1	44
Heart disease	F	5.0	

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
AGE STANDARDIZED rate per 100,000			
Asthma	48.2	34.3	15
Cardiovascular disease	975.7	916.9	40
Cerebrovascular disease	161.9	133.2	19
COPD	143.7	171.8	52
Diabetes	115.1	100.2	34
Hypertension	17.7	18.0	37
Ischemic heart disease	309.5	314.8	49
Lower respiratory disease	194.1	208.9	50
Respiratory disease	638.9	599.7	37
Stroke	136.8	112.5	15

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$3,000	\$ 2,750	41
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$23,150	\$ 22,050	27
# of patients that are complex	16,260	680,115	
% of all patients (health care users) that are complex	6.7%	5.8%	19
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$41,950	\$ 37,700	7
# of patients that are high cost users	12,060	581,670	
% of patients that are high cost users	5.0%	5.0%	47

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## NORTH YORK CENTRAL SUB-REGION (802)

- The prevalence rate (per 100) for the population with asthma was 3.9 (Ontario - 7.8). **North York Central** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 81.3 (Ontario - 171.8). **North York Central** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for diabetes was 59.0 (Ontario - 100.2). **North York Central** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 112.6 (Ontario - 208.9). **North York Central** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 406.9 (Ontario - 599.7). **North York Central** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **North York Central** sub-region was \$2,650 (Ontario - \$2,750).
- 6.0% of patients from **North York Central** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **North York Central** sub-region was \$21,800 (Ontario - \$22,050).
- 4.6% of patients from **North York Central** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **North York Central** sub-region was \$38,300 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	North York Central	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	15.5	17.3	54
Asthma	3.9	7.8	71
Diabetes	5.7	6.8	53
High blood pressure	20.7	18.1	25
Heart disease	5.1	5.0	36

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	26.3	34.3
Cardiovascular disease	817.3	916.9
Cerebrovascular disease	127.3	133.2
COPD	81.3	171.8
Diabetes	59.0	100.2
Hypertension	14.5	18.0
Ischemic heart disease	269.9	314.8
Lower respiratory disease	112.6	208.9
Respiratory disease	406.9	599.7
Stroke	111.5	112.5

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$2,650	\$ 2,750
Complex Patients (4+ conditions)		
Mean health care cost per complex patient \$	\$21,800	\$ 22,050
# of patients that are complex	19,305	680,115
% of all patients (health care users) that are complex	6.0%	5.8%
High cost users (Top 5%) #		
Mean health care cost per high cost user \$	\$38,300	\$ 37,700
# of patients that are high cost users	14,900	581,670
% of patients that are high cost users	4.6%	5.0%

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## WESTERN YORK REGION SUB-REGION (803)

- The prevalence rate (per 100) for the population with arthritis (14+) was 10.2 (Ontario - 17.3). **Western York Region** sub-region's rate was **significantly lower** than Ontario.
- The prevalence rate (per 100) for the population with asthma was 5.2 (Ontario - 7.8). **Western York Region** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The prevalence rate (per 100) for the population with high blood pressure was 12.5 (Ontario - 18.1). **Western York Region** sub-region's rate was **significantly lower** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 746.9 (Ontario - 916.9). **Western York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 111.6 (Ontario - 133.2). **Western York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 72.0 (Ontario - 171.8). **Western York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for diabetes was 52.1 (Ontario - 100.2). **Western York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 103.4 (Ontario - 208.9). **Western York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 432.2 (Ontario - 599.7). **Western York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Western York Region** sub-region was \$2,050 (Ontario - \$2,750). It was among the 8 sub-regions with the lowest mean cost per user.
- 4.7% of patients from **Western York Region** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Western York Region** sub-region was \$18,800 (Ontario - \$22,050). It was among the 8 sub-regions with the lowest mean cost per complex patient.
- 3.3% of patients from **Western York Region** sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the lowest percentage of high cost users.
- The mean health care cost per high cost user in **Western York Region** sub-region was \$35,850 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Western York Region	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	10.2	17.3	72
Asthma	5.2	7.8	68
Diabetes	5.2	6.8	60
High blood pressure	12.5	18.1	72
Heart disease	4.0	5.0	60

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
<i>AGE STANDARDIZED rate per 100,000</i>			
Asthma	29.2	34.3	49
Cardiovascular disease	746.9	916.9	70
Cerebrovascular disease	111.6	133.2	68.5
COPD	72.0	171.8	75
Diabetes	52.1	100.2	73
Hypertension	16.3	18.0	44
Ischemic heart disease	234.6	314.8	66
Lower respiratory disease	103.4	208.9	74
Respiratory disease	432.2	599.7	73
Stroke	95.6	112.5	66

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,050	\$ 2,750	70.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$18,800	\$ 22,050	72
# of patients that are complex	20,720	680,115	
% of all patients (health care users) that are complex	4.7%	5.8%	65
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$35,850	\$ 37,700	47.5
# of patients that are high cost users	14,900	581,670	
% of patients that are high cost users	3.3%	5.0%	71

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## EASTERN YORK REGION SUB-REGION (804)

- The prevalence rate (per 100) for the population with arthritis (14+) was 8.7 (Ontario - 17.3). **Eastern York Region** sub-region's rate was **significantly lower** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for asthma was 22.0 (Ontario - 34.3). **Eastern York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 678.5 (Ontario - 916.9). **Eastern York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 109.8 (Ontario - 133.2). **Eastern York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 43.4 (Ontario - 171.8). **Eastern York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for diabetes was 57.5 (Ontario - 100.2). **Eastern York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 220.6 (Ontario - 314.8). **Eastern York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 67.1 (Ontario - 208.9). **Eastern York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 364.6 (Ontario - 599.7). **Eastern York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Eastern York Region** sub-region was \$1,950 (Ontario - \$2,750). It was among the 8 sub-regions with the lowest mean cost per user.
- 4.1% of patients from **Eastern York Region** sub-region were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the lowest percentage of complex patients.
- The mean health care cost per complex patient in **Eastern York Region** sub-region was \$19,800 (Ontario - \$22,050).
- 3.2% of patients from **Eastern York Region** sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the lowest percentage of high cost users.
- The mean health care cost per high cost user in **Eastern York Region** sub-region was \$36,400 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Eastern York Region	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	8.7	17.3	73
Asthma	5.9	7.8	61
Diabetes	6.2	6.8	45
High blood pressure	14.8	18.1	66
Heart disease	4.0	5.0	59

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
AGE STANDARDIZED rate per 100,000			
Asthma	22.0	34.3	70
Cardiovascular disease	678.5	916.9	74
Cerebrovascular disease	109.8	133.2	71
COPD	43.4	171.8	76
Diabetes	57.5	100.2	72
Hypertension	17.5	18.0	38.5
Ischemic heart disease	220.6	314.8	69
Lower respiratory disease	67.1	208.9	76
Respiratory disease	364.6	599.7	76
Stroke	95.4	112.5	67

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$1,950	\$ 2,750	72.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$19,800	\$ 22,050	61
# of patients that are complex	13,365	680,115	
% of all patients (health care users) that are complex	4.1%	5.8%	72
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$36,400	\$ 37,700	37
# of patients that are high cost users	10,330	581,670	
% of patients that are high cost users	3.2%	5.0%	73

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.



### SOUTH SIMCOE SUB-REGION (805)

- The mean health care cost per user in South Simcoe sub-region was \$2,400 (Ontario - \$2,750).
- 5.2% of patients from South Simcoe sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in South Simcoe sub-region was \$19,950 (Ontario - \$22,050).
- 4.4% of patients from South Simcoe sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in South Simcoe sub-region was \$34,750 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	South Simcoe	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	16.7	17.3	46
Asthma	6.0	7.8	60
Diabetes	F	6.8	
High blood pressure	14.8	18.1	65
Heart disease	4.4	5.0	54

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	39.6	27
Cardiovascular disease	939.2	46
Cerebrovascular disease	124.4	57
COPD	139.0	54
Diabetes	80.3	57
Hypertension	14.3	55
Ischemic heart disease	314.0	47
Lower respiratory disease	179.9	54
Respiratory disease	646.7	36
Stroke	99.8	61

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$2,400	61.5
Complex Patients (4+ conditions)		
Mean health care cost per complex patient \$	\$19,950	58
# of patients that are complex	3,675	
% of all patients (health care users) that are complex	5.2%	58
High cost users (Top 5%) #		
Mean health care cost per high cost user \$	\$34,750	66
# of patients that are high cost users	3,065	
% of patients that are high cost users	4.4%	59

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## NORTHERN YORK REGION SUB-REGION (806)

- The prevalence rate (per 100) for the population with diabetes was 4.7 (Ontario - 6.8). **Northern York Region** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 738.4 (Ontario - 916.9). **Northern York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 211.1 (Ontario - 314.8). **Northern York Region** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Northern York Region** sub-region was \$2,400 (Ontario - \$2,750).
- 5.5% of patients from **Northern York Region** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Northern York Region** sub-region was \$19,800 (Ontario - \$22,050).
- 4.3% of patients from **Northern York Region** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Northern York Region** sub-region was \$35,600 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Northern York Region	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	14.4	17.3	59
Asthma	6.2	7.8	57
Diabetes	4.7	6.8	62
High blood pressure	20.2	18.1	33
Heart disease	4.8	5.0	44

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
AGE STANDARDIZED rate per 100,000			
Asthma	24.0	34.3	65
Cardiovascular disease	738.4	916.9	72
Cerebrovascular disease	114.1	133.2	66
COPD	131.1	171.8	56
Diabetes	71.0	100.2	63
Hypertension	18.7	18.0	31
Ischemic heart disease	211.1	314.8	73
Lower respiratory disease	158.7	208.9	60
Respiratory disease	558.8	599.7	55
Stroke	94.2	112.5	68

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,400	\$ 2,750	61.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$19,800	\$ 22,050	61
# of patients that are complex	10,300	680,115	
% of all patients (health care users) that are complex	5.5%	5.8%	53
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$35,600	\$ 37,700	51
# of patients that are high cost users	8,205	581,670	
% of patients that are high cost users	4.3%	5.0%	60

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## Human Resources

### Physicians

- In 2016, there were approximately 3,360 physicians in Central LHIN.
  - This represents the equivalent of approximately 177 physicians for every 100,000 persons in Central LHIN.
  - The number of physicians in Central LHIN increased by close to 12% between 2013 and 2016 with higher growth occurring among specialists than family physicians.
- Between 2013 and 2016, there was an increase of approximately 172 family physicians in Central LHIN.
  - The majority of the increase in Central LHIN occurred with 87 additional family physicians between 30-64 years of age and 64 additional family physicians between 65-74 years of age.
- In 2016, approximately 17% of family physicians in Central LHIN were at or beyond the age of retirement (65 years of age or older).

### Nurses

- In 2016, there were 11,691 total nurses in Central LHIN.
- The total number of nurses increased by 8% between 2013 and 2016,
  - While the number of Registered Nurses in Central LHIN between 2013 and 2016 remained stable, there were substantial increases in the number of Nurse Practitioners (56% increase) and Registered Practical Nurses (24% increase) during the same time period.
- In 2016, there were approximately 617 nurses for every 100,000 residents of Central LHIN.

### Other Allied Health Professionals

- Between 2013 and 2016, the greatest growth in the number of allied health professionals in Central LHIN was among Midwives (an increase of 18 or approximately 45%), Pharmacists (an increase of 369 or about 23%), and Optometrists (an increase of 50 or 17%).
- Opticians in Central LHIN experienced a 6% reduction in their raw numbers (33 fewer) and slightly higher reductions in their numbers per capita.

Central LHIN					
Physicians	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Total Family Medicine Physicians</b>					
Number of family medicine physicians	1,588	1,665	1,720	1,760	10.8%
Rate per 100,000 population	87.4	90.3	92.4	92.9	6.3%
<b>Total Specialists</b>					
Number of specialists	1,419	1,462	1,523	1,600	12.8%
Rate per 100,000 population	78.1	79.3	81.8	84.5	8.1%
<b>Total Physicians</b>					
Number of total physicians	3,007	3,127	3,243	3,360	11.7%
Rate per 100,000 population	165.6	169.6	174.1	177.4	7.1%

Family Physicians, by age group - count					
Age <30	25			43	72.0%
Age 30-64	1,329			1,416	6.5%
Age 65-74	194			258	33.0%
Age 75+	40			43	7.5%
Grand Total	1,588			1,760	10.8%
Age 65+	234			301	28.6%

Family Physicians, by age group – percent					
Age <30	1.6%			2.4%	55.2%
Age 30-64	83.7%			80.5%	-3.9%
Age 65-74	12.2%			14.7%	20.0%
Age 75+	2.5%			2.4%	-3.0%
Age 65+	14.7%			17.1%	16.1%

Central LHIN					
Nurses	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Registered Nurses</b>					
Number of RNs	7,618	7,751	7,767	7,656	0.5%
Rate per 100,000 population	419.3	420.5	417.1	404.2	-3.6%
<b>Registered Practical Nurses</b>					
Number of RPN nurses	3,153	3,491	3,695	3,902	23.8%
Rate per 100,000 population	173.5	189.4	198.4	206.0	18.7%
<b>Nurse Practitioners</b>					
Number of NP nurses	85	104	124	133	56.5%
Rate per 100,000 population	4.7	5.6	6.7	7.0	50.1%
<b>Total Nurses</b>					
Total Nurse - Number of nurses	10,856	11,346	11,586	11,691	7.7%
Total Nurse - Rate per 100,000 population	597.5	615.5	622.2	617.3	3.3%

Central LHIN					
Other Regulated Health Professionals	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Audiologists</b>					
Audiologist – Number	72	73	66	74	2.8%
Audiologist - Rate per 100,000 population	4.0	4.0	3.5	3.9	-1.4%
<b>Midwives</b>					
Midwife – Number	40	50	47	58	45.0%
Midwife - Rate per 100,000 population	2.2	2.7	2.5	3.1	39.1%
<b>Occupational Therapists</b>					
Occupational Therapist - Number	686	713	729	764	11.4%
Occupational Therapist - Rate per 100,000 population	37.8	38.7	39.1	40.3	6.8%
<b>Opticians</b>					
Optician – Number	533	508	536	500	-6.2%
Optician - Rate per 100,000 population	29.3	27.6	28.8	26.4	-10.0%
<b>Optometrists</b>					
Optometrist – Number	291	317	330	341	17.2%
Optometrist - Rate per 100,000 population	16.0	17.2	17.7	18.0	12.4%
<b>Pharmacists</b>					
Pharmacist – Number	1,627	1,820	1,945	1,996	22.7%
Pharmacist - Rate per 100,000 population	89.5	98.7	104.4	105.4	17.7%
<b>Psychologists</b>					
Psychologist – Number	388	389	398	399	2.8%
Psychologist - Rate per 100,000 population	21.4	21.1	21.4	21.1	-1.3%
<b>Speech-Language Pathologists</b>					
Speech-Language Pathologist – Number	420	430	407	440	4.8%
Speech-Language Pathologist - Rate per 100,000 population	23.1	23.3	21.9	23.2	0.5%

## Primary Care

### Primary Care Enrolment

- Almost 1.5 million (n=1,456,566) Central residents were enrolled with a PEM and 456,163 residents were affiliated with FFS physicians (i.e. not enrolled).
- LHIN residents were primarily affiliated with FHGs (38% of LHIN residents). One-third (33%) were affiliated with a FHO.
- There are 104 practices with 1373 physicians in the LHIN, and physicians were distributed across multiple primary care models: more than one-third of the physicians are associated with FHGs (n=511) across 32 practices.

### Selected Measures from the Health Care Experience Survey

#### Self-reported access to, and satisfaction with, primary care

	Ontario (2017)	LHIN (2017)	Range Across Central sub- regions (2014-2017)
Percentage who are satisfied with health care in their community	87%	88%	85% to 90%
Percentage with primary care providers (attached patients)	94%	95%	92% to 97%
Percentage who saw their primary care provider within the same day/next day when sick	40%	43%	38% to 57%
Percentage who went to ED for something that could have been treated by primary care provider	42%	42%	28% to 44%
Percentage who found it difficult to access care after-hours without going to an emergency department	53%	52%	37% to 63%
Percentage who went to walk-in clinic in past 12 months	30%	41% <sup>H</sup>	31% to 49%
Percentage who went to a walk in clinic for something that could have been treated by provider if they were available	92%	94%	91% to 95%

*H=significantly higher than the province*

*L=significantly lower than the province*

- Eighty-eight percent (88%) of Central residents were satisfied with health care in their community.
  - **Eastern York Region** reported a **significantly higher** rate of satisfaction than the province at 90%.
- In 2017, 95% of Central adults (aged 16 years and older) had a primary care provider.
  - **Northern York Region** reported a **significantly lower** attachment rate compared to Ontario at 92%.
- In 2017, 43% of Central LHIN residents were able to see their primary care provider within the same day/next day when they were sick.
  - **North York West** (57%) and **Eastern York Region** (51%) were **significantly higher** than the province.
- Forty-two (42%) percent of Central LHIN went to the ED for something that could have been treated by their primary care provider.
  - **Northern York Region** sub-region reported a **significantly lower** proportion than the province (28%).
- 52% of LHIN residents found it difficult to access after-hours care without going to an ED.
  - **Northern York Region** sub-region (37%) reported **significantly lower** than provincial proportions, and **South Simcoe** reported **significantly higher** proportions than the province (63%).



- 41% of residents reported that they had visited a walk-in clinic in the previous 12 months, **significantly higher** than the provincial value (30%)
  - **North York West** (36%), **Western York Region** (49%) and **Northern York Region** (48%) were **significantly higher** than the provincial proportion.
  - Ninety-four percent (94%) felt that their walk-in visit could have been addressed by a primary care provider had one been available.

## Community Care

- Central LHIN ranks lowest in CMH&A\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population with 5 (province is 55).

## Mental Health

### Wait Time for Community Services

- Assertive Community Treatment team and support within housing had the longest median wait times among the community mental health (MH) services in Central LHIN in 2017/18. With the exception of centralized/coordination access, diversion and court support and vocational/employment services, Central LHIN had longer median wait times than the province for all community MH services in 2017/18.
- Among the substance abuse (SA) services provided in Central LHIN, case management/supportive counselling and services had the longest median wait times (362 days), 95 days longer than the province's median wait in 2017/18.
- For problem gambling, only community treatment is provided in this LHIN. The median wait time for this treatment was 7 days shorter than the provincial median wait of 10 days.

### Mental Health and Substance Abuse Emergency Department Visits

- In 2016/17, there were 22,134 ED visits for Central residents where the main problem was a MH/SA condition. There were 28,350 visits with a MH/SA condition in any of the diagnostic fields.
- Between 2013/14 and 2016/17, there was 19.7% growth in visits with a MH/SA main problem diagnosis (lower than the province's value of 20.9%) and 21.9% growth in visits with a MH/SA condition in any diagnostic field (higher than the province's value of 21.1%).
- The MH/SA ED visit rate (main diagnosis) per 1,000 population for Central LHIN residents was the **lowest** rate in the province. The main problem visit rate increased by 14.7% between 2013/14 and 2016/17.
  - By sub-region, **Eastern York Region** had the lowest ED visit rate per 1,000 population where the main problem was a MH/SA condition (7.4) and when MH/SA was in any diagnostic field (10.1).
  - **Western York Region** had the 4<sup>th</sup> lowest and 3<sup>rd</sup> lowest ED visit rate per 1,000 population where the main problem was a MH/SA condition (8.8) and when MH/SA was in any diagnostic field (11.6).
- Visits with a MH/SA main problem diagnosis accounted for 3.6% of all ED visits for Central LHIN residents.
- In 2016/17, Central LHIN residents made 308 ED visits for opioid overdose. Of those, 53.9% were accidental, the third highest proportion in the province.
- The crude rate of ED visits for opioid overdose in FY2016/17 for Central residents was 1.6, the **lowest** rate in the province. Between 2013/14 and 2016/17, there was a 41.4% growth in the visit rate for opioid overdose for all Central residents, lower than the province (48.4%).

## Unscheduled emergency department utilization for mental health and substance abuse conditions, Central LHIN and Ontario residents, 2016/17

Measure	Central LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient<sup>†</sup></b>				
Main problem visits	22,134	268,514	19.7%	
% of total ED visits	3.6%	4.3%	-	
Any problem visits	28,350	338,260	21.9%	
% of total ED visits	4.6%	5.5%	-	
Main problem, visits per 1,000	11.7	19.2	14.7%	<i>Lowest</i>
Any problem, visits per 1,000	15.0	17.1%	16.9%	<i>2<sup>nd</sup> lowest</i>
ED visits for opioid overdose	308	4,831	47.4%	
% of visits that were accidental	53.9%	50.1%	-	
Crude rate per 10,000 population	1.6	3.5	41.4%	<i>Lowest</i>

<sup>†</sup>LHIN of patient results for Ontario exclude out-of-province residents

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

### Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility

- In 2016/17, there were 21,017 unscheduled ED visits in Central LHIN hospitals, where the main problem was a MH/SA condition. 1.1% of these visits were made by homeless individuals, the second lowest proportion in the province.
- There were 5,019 admissions and 5,198 active cases who received treatment in adult designated MH units in Central LHIN hospitals. There were 5,061 discharges from these units with the total days of discharge patients equal to 63,034 days. The mean length of stay in Central LHIN MH units was 12.5 days, the second lowest in the province. Residents from outside the LHIN accounted for 24.1% of the active cases treated in Central LHIN.
- Between 2013/14 and 2016/17, active cases, admissions and discharges increased in Central LHIN hospitals by 1.4%, 0.9% and 2.1%, respectively. The total days of discharged patients increased by 7.1%.
- Schizophrenia and psychotic disorders (30.4%) and short stay (30.3%) accounted for the largest proportions of active cases in Central LHIN hospitals in 2016/17. Compared with the provincial values, Central had larger proportions of active cases for schizophrenia and psychotic disorders and short stay.
- There were 5,846 active cases, 5,538 admissions and 5,587 discharges for Central LHIN residents from Ontario adult designated MH units. Mean length of stay for Central LHIN residents was 18.5 days, the second lowest in the province. 32.5% of Central LHIN resident active cases received treatment in hospitals outside the LHIN, the **highest** proportion in the province. Compared with the provincial rates, Central LHIN residents had the third lowest rates of active cases, admissions, and discharges per 100,000 population age 15+.
  - By sub-region, **Western York Region** had the 3<sup>rd</sup> lowest crude rate of active cases (252.7), 4<sup>th</sup> lowest crude rate of admissions (241.0) and 3<sup>rd</sup> lowest crude rate of discharges (241.4) (all per 100,000 population).
  - **Eastern York Region**, had the 6<sup>th</sup> lowest crude rate of active cases (297.8), 7<sup>th</sup> lowest crude rate of admissions (282.8) and 6<sup>th</sup> lowest crude rate of discharges (287.5) (all per 100,000 population).
- Active cases, admissions, discharges, total days and the associated rates decreased for Central LHIN residents between 2013/14 and 2016/17.

### Adult designated mental health unit utilization, Central LHIN hospitals and residents, 2016/17

Measure	Central LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient</b>				
Active cases	5,846	64,523	-2.0%	
Admissions	5,538	60,197	-2.3%	
Discharges	5,587	60,607	-1.5%	
Total Days	103,222	1,504,690	-11.4%	
Mean Length of Stay	18.5	24.8	-	2 <sup>nd</sup> lowest
% Outflow Active Cases	32.5%	-	-	Highest
Active Cases per 100,000 (age 15+)	367.8	548.5	-6.5%	3 <sup>rd</sup> lowest
Admission per 100,000 (age 15+)	348.4	511.7	-6.8%	3 <sup>rd</sup> lowest
Discharges per 100,000 (age 15+)	351.5	515.2	-6.0%	3 <sup>rd</sup> lowest
<b>SCIPP Categories - % of total active cases</b>				
Short Stay	28.1%	27.4%	-	
Schizophrenia and other psychotic disorders	29.4%	27.0%	-	
Neurocognitive disorders	3.2%	3.1%	-	
Bipolar and depressive disorders	29.0%	29.6%	-	
Personality disorders	2.3%	3.0%	-	
Feeding and eating disorders	0.2%	0.4%	-	
Substance Use disorders	4.7%	5.5%	-	
Other disorders	2.8%	4.0%	-	
<b>LHIN of hospital</b>				
Active cases	5,198	64,738	1.4%	
Admissions	5,019	60,383	0.9%	
Discharges	5,061	60,795	2.1%	
Total Days (discharged patients only)	63,034	1,512,754	7.1%	
Mean Length of Stay	12.5	24.9	-	2 <sup>nd</sup> lowest
% Inflow Active Cases	24.1%	-	-	

‡Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

## Surgery & Diagnostic Imaging

### Day Surgery and Cardiac Catheterization Utilization

#### Day Surgery and Cardiac Catheterization Visits

- In 2016/17, there were 149,850 day surgery and ambulatory cardiac catheterization visits to Central LHIN hospitals. Residents from outside the LHIN accounted for 33.9% of the visits.
- Between 2013/14 and 2016/17, there was an increase of 11.4% in Central LHIN hospital's day surgery and cardiac catheterization visits. This was the highest increase of all LHINs.
- There were 150,877 day surgery and ambulatory cardiac catheterization visits for Central LHIN residents. There was an increase in both the number and rate of visits between 2013/14 and 2016/17.
- In 2016/17, 34.4% of these visits occurred in hospitals outside the LHIN.
- The following sub-regions had among the eight highest outflow rates to other LHINs for all Ontario sub-regions:
  - North York West had the 7<sup>th</sup> highest outflow rate.
  - North York Central had the 3<sup>rd</sup> highest outflow rate.
  - Eastern York Region had the 8<sup>th</sup> highest outflow rate.
- Central LHIN residents had 79.7 day surgery and cardiac catheterization visits per 1,000 population. This rate was lower than the provincial rate of 93.9.

#### Day surgery and ambulatory cardiac catheterization visits, Central LHIN and Ontario, 2016/17

Measure	LHIN	Comments	Ontario†	LHIN % change 2013-14 - 2016/17	Range within LHINs	Range within CEN sub-regions
<b>LHIN of hospital</b>						
Visits	149,850		1,322,943	11.4%	27,727 - 158,077	
% Inflow visits	33.9%	2 <sup>nd</sup> highest			0.7% - 58.4%	
<b>LHIN of patient</b>						
Total population	1,893,948		13,982,984	4.2%	235,148 - 1,893,948	
Visits	150,877		1,313,103	9.9%	28,401 - 157,644	9,042 - 39,537
% Outflow visits	34.4%	2 <sup>nd</sup> highest			3.0% - 39.0%	12.8% - 52.2%
Visits per 1,000 population	79.7		93.9	5.4%	66.8 - 151.0	67.7 - 117.5
- age 0-17 years	16.7		22.2		13.9 - 38.4	
- age 18-44 years	38.3		46.5		34.8 - 85.5	
- age 45-64 years	107.9		125.3		93.9 - 183.0	
- age 65-79 years	214.7		239.9		176.5 - 318.4	
- age 80+ years	212.7		202.7		138.5 - 260.4	

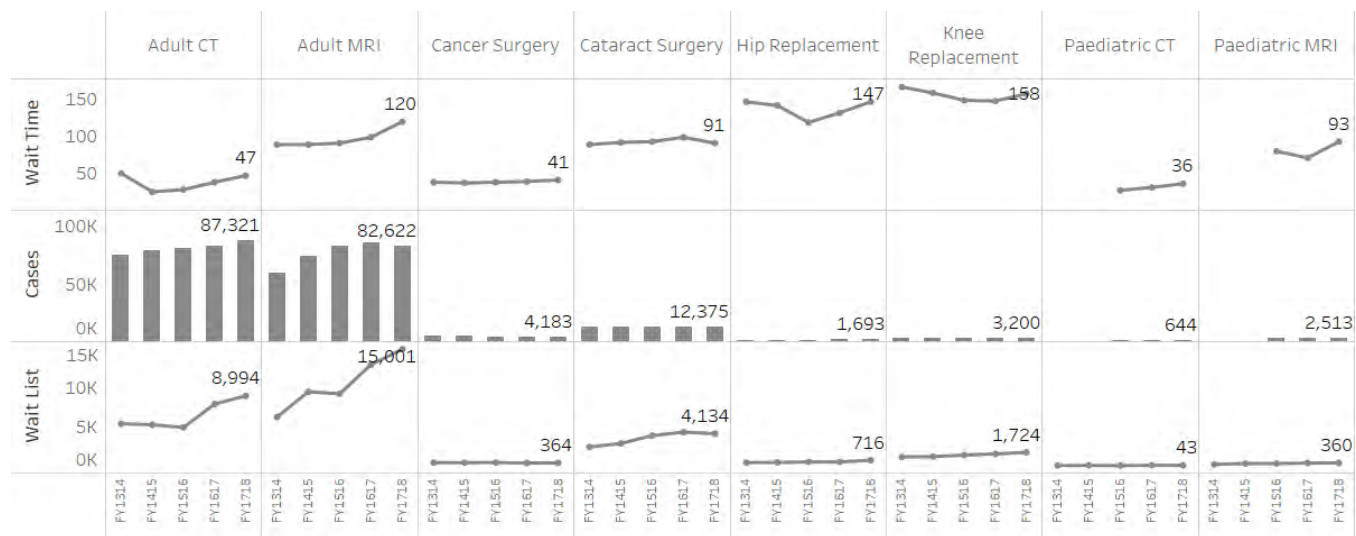
†LHIN of patient results for Ontario exclude out-of-province residents

## Surgical & Diagnostic Imaging Wait Times

### Central LHIN Priority Procedures:

### Wait 2 90th Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

#### LHIN of Treatment

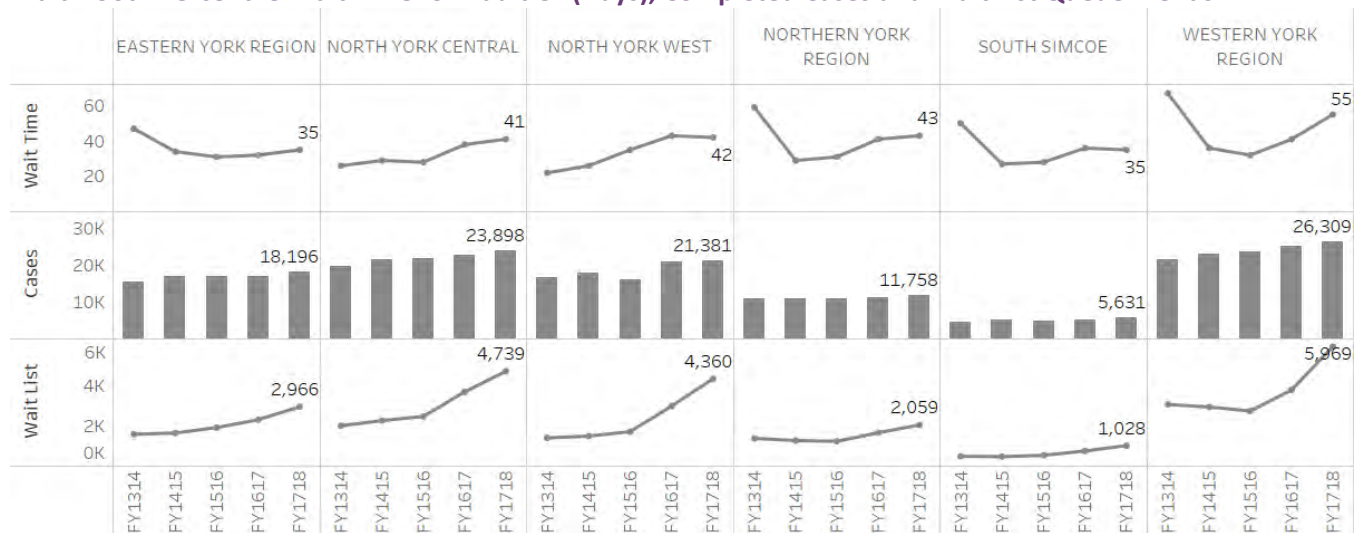


## Adult CT

- There were 87,321 adult CT scans completed in FY 2017-18; 4,160 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 47 days, 9 days longer than the previous fiscal.
- In 2017/18, hospitals in the Central LHIN had the 6<sup>th</sup> longest wait time for adult CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 8,994 patients; 1,058 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Adult CT (Days), Completed Cases and Wait List Queue Trends



- Central LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 35 days to 55 days.

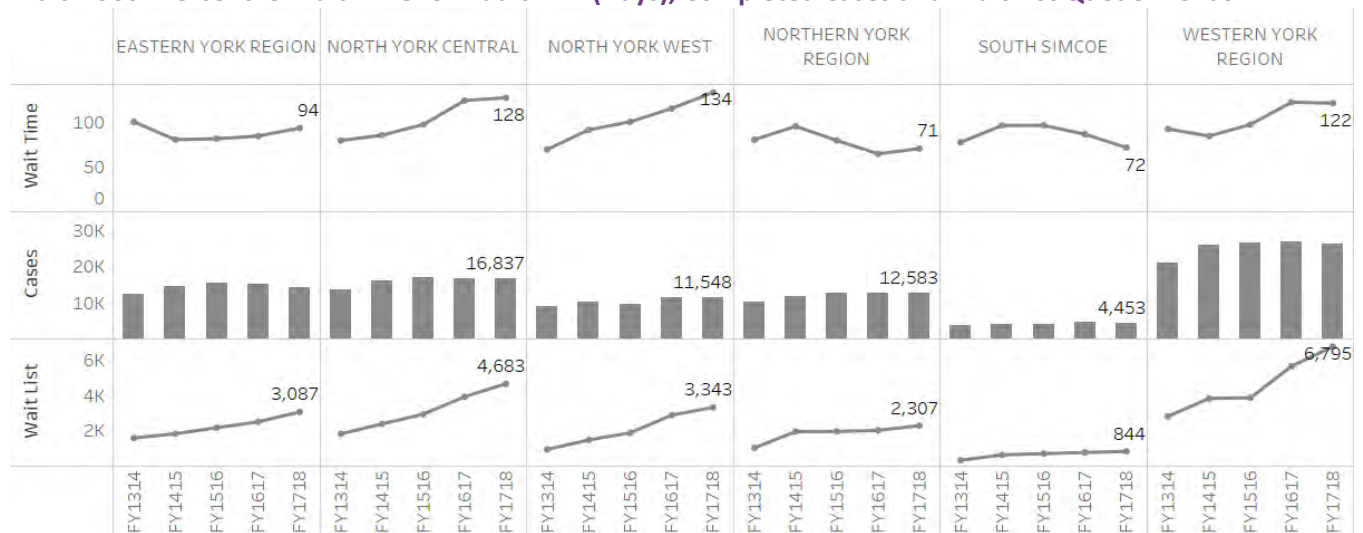


## Adult MRI

- There were 82,622 adult MRI scans completed in FY 2017-18; 3,001 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 120 days, 21 days longer than the previous fiscal.
- In 2017/18, hospitals in the Central LHIN had the 3<sup>rd</sup> longest wait time for adult MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 15,001 patients; 1,974 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Adult MRI (Days), Completed Cases and Wait List Queue Trends



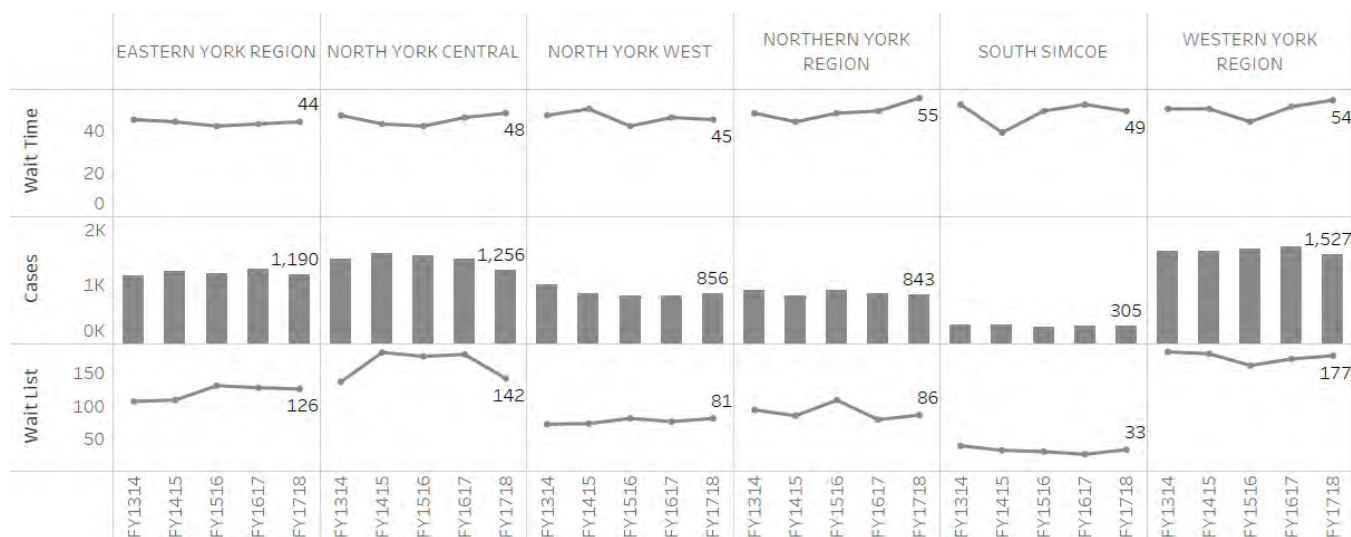
- Central LHIN sub-region (of Patient Residence) variation in FY 2017-18: 71 days to 134 days.

## Cancer Surgery

- There were 4,183 cancer surgeries completed in FY 2017-18; 46 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 41 days, 2 days longer than the previous fiscal.
- In 2017/18, hospitals in the Central LHIN had the 2<sup>nd</sup> shortest wait time for cancer surgery (tied with 3 other LHINs).
- The wait list queue at the start of FY 2017-18 was 364 patients; 16 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Cancer Surgery (Days), Completed Cases and Wait List Queue Trends



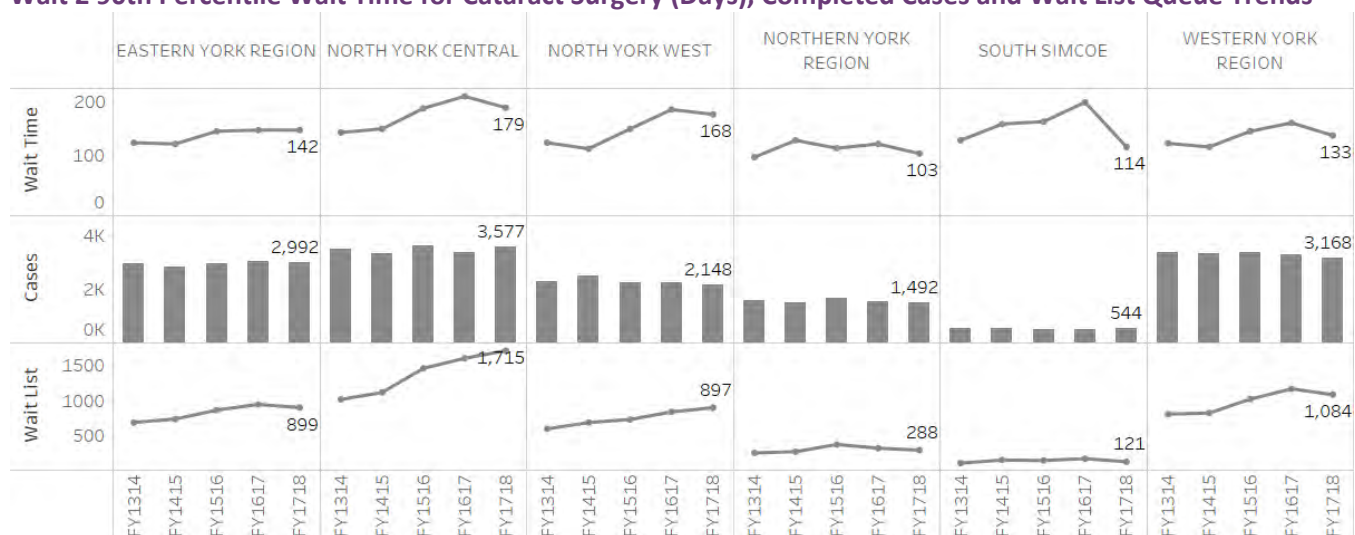
- Central LHIN sub-region (of Patient Residence) variation in FY 2017-18: 44 days to 55 days.

### Cataract Surgery

- There were 12,375 cataract surgeries completed in FY 2017-18; 35 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 91 days, 8 days shorter than the previous fiscal.
- In 2017/18, hospitals in the Central LHIN had the **shortest** wait time for cataract surgery.
- The wait list queue at the start of FY 2017-18 was 4,134 patients; 196 fewer queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90th Percentile Wait Time for Cataract Surgery (Days), Completed Cases and Wait List Queue Trends



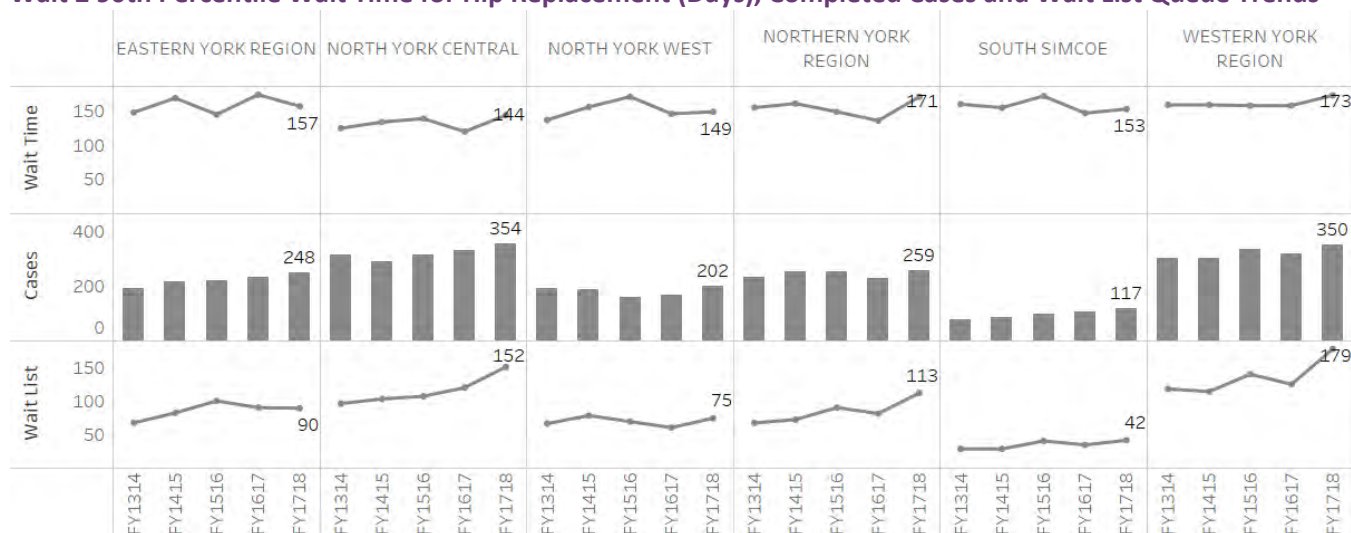
- Central LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 103 days to 179 days.

## Hip Replacement

- There were 1,693 hip replacement surgeries completed in FY 2017-18; 218 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 147 days, 15 days longer than the previous fiscal.
- In 2017/18, hospitals in the Central LHIN had the **shortest** wait time for hip replacement surgery.
- The wait list queue at the start of FY 2017-18 was 716 patients; 234 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Hip Replacement (Days), Completed Cases and Wait List Queue Trends



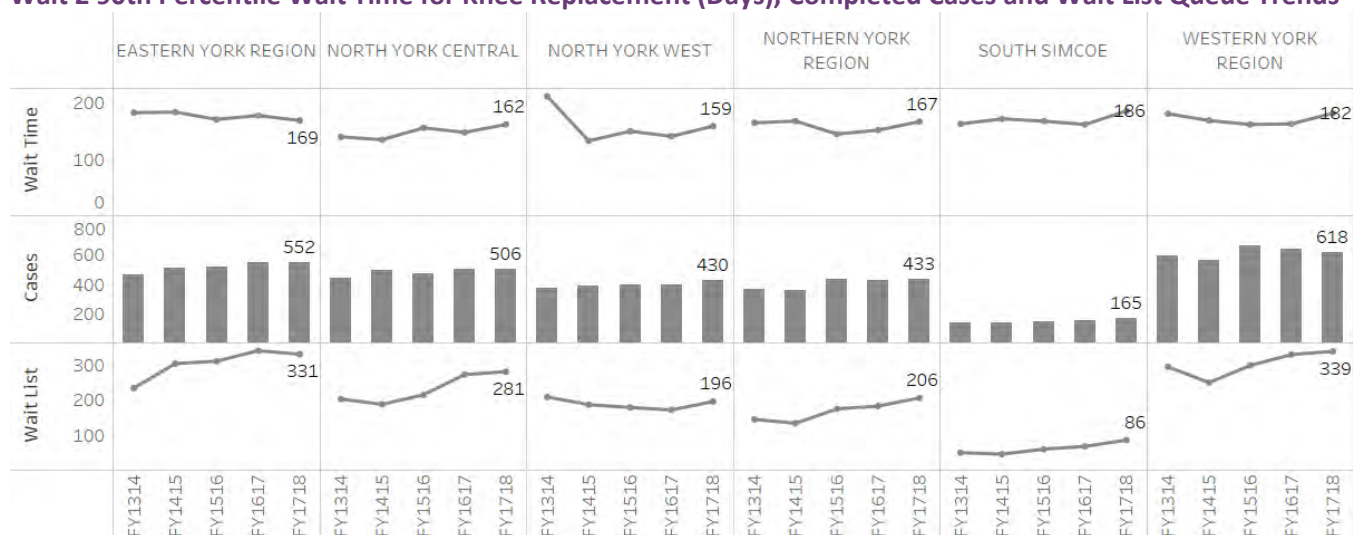
- Central LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 144 days to 173 days.

## Knee Replacement

- There were 3,200 knee replacement surgeries completed in FY 2017-18; 155 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 158 days, 10 days longer than the previous fiscal.
- In 2017/18, hospitals in the Central LHIN had the **shortest** wait time for knee replacement surgery.
- The wait list queue at the start of FY 2017-18 was 1,724 patients; 201 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Knee Replacement (Days), Completed Cases and Wait List Queue Trends



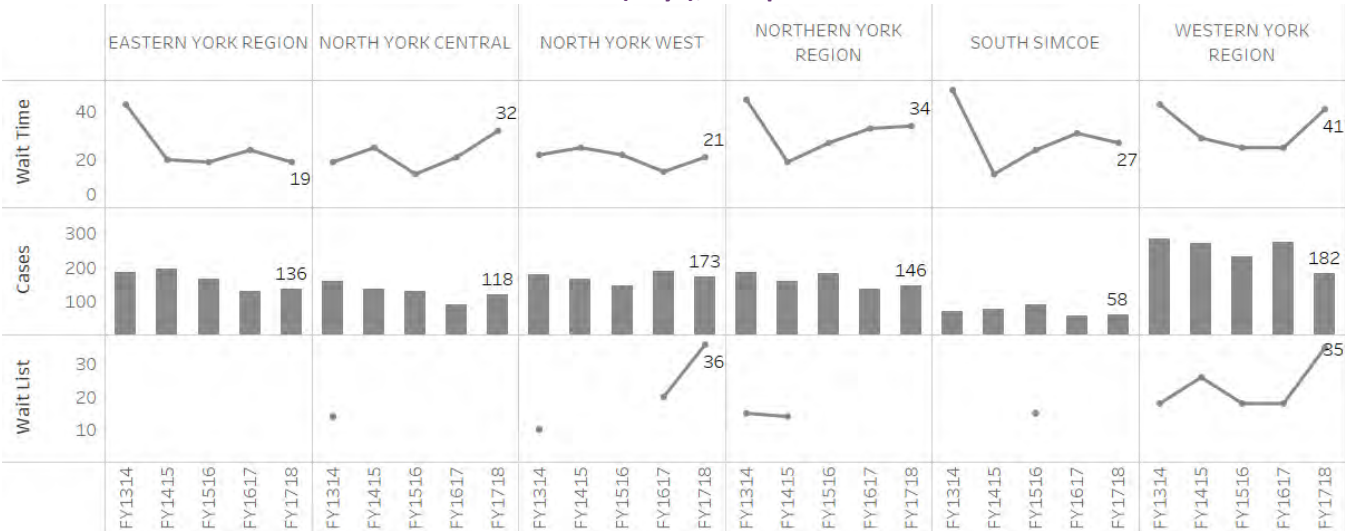
- Central LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 159 days to 186 days.

**Paediatric CT**

- There were 644 paediatric CT scans completed in FY 2017-18; 7 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 36 days, 5 days longer than the previous fiscal.
- In 2017/18, hospitals in the Central LHIN had the 4<sup>th</sup> longest wait time for paediatric CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 43 patients; 7 fewer queued compared to the previous fiscal.

**Sub-Region of Patient Residence Comparison:**

**Wait 2 90th Percentile Wait Time for Paediatric CT (Days), Completed Cases and Wait List Queue Trends**



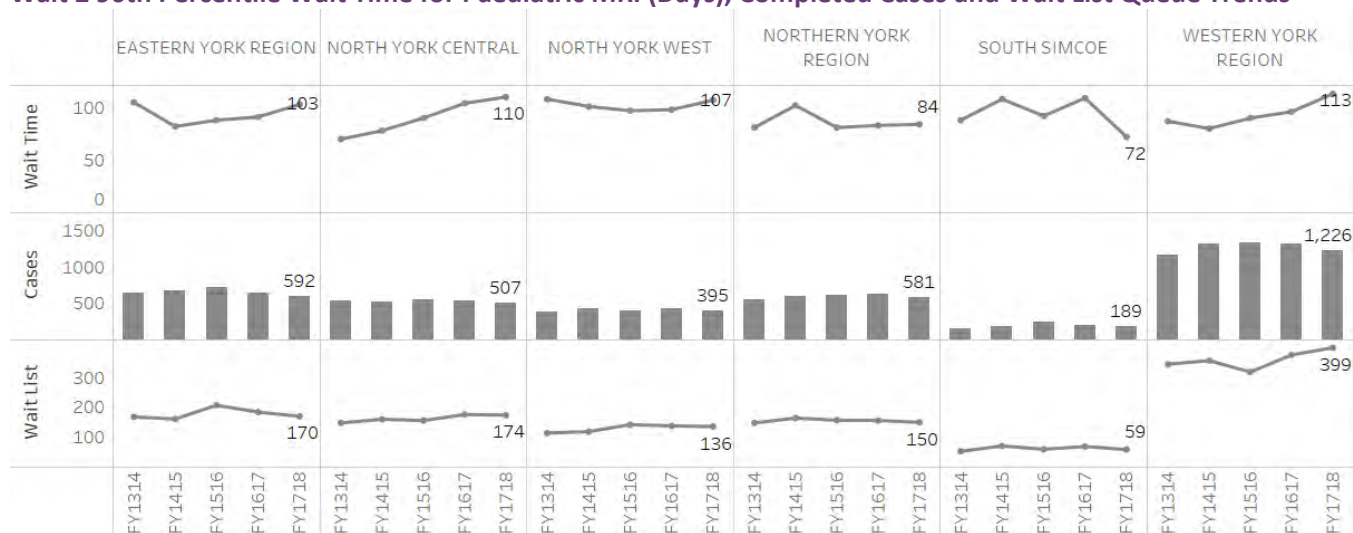
- Central LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 19 days to 41 days.

### Paediatric MRI

- There were 2,513 paediatric MRI scans completed in FY 2017-18; 149 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 93 days, 22 days longer than the previous fiscal.
- In 2017/18, hospitals in the Central LHIN had the 4<sup>th</sup> longest wait time for paediatric MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 360 patients; 13 more queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90th Percentile Wait Time for Paediatric MRI (Days), Completed Cases and Wait List Queue Trends



- Central LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 72 days to 113 days.



## Oncology and Dialysis

### Ambulatory Oncology Utilization

- In 2016/17, there were 52,281 ambulatory oncology visits to hospital(s) in Central LHIN.
- Since 2014/15, visits in Ontario have increased by 9%. The number of visits to CEN LHIN hospitals increased by 12% and visits for CEN LHIN residents have increased by 8%.
- Ambulatory oncology visits per 1,000 population for residents of Central LHIN is 65.4 (Ontario - 75.7). The rate is among the 4 lowest visit rates in the province.
- Oncology visits per 1,000 population for age group 45-64 years (94.8 vs. Ontario - 106.7) and 65-79 years (224.4 vs. Ontario - 255.4) are among the 4 lowest visit rates in the province in their respective age groups.
- At sub-region level,
  - **North York Central** has among the 8 highest visit rates in Ontario for age group 0-17 years;
  - **Eastern York Region** has among the 8 lowest visit rates in Ontario across age groups 45-64 years (80.1 vs. Ontario - 106.7), 65-79 years (186.6 vs. Ontario - 255.4) and 80+ years (121.2 vs. Ontario - 191.6).
- 68% of ambulatory oncology visits by Central LHIN residents went to hospitals outside of Central LHIN. 4 of the 6 sub-regions have greater than >60% of visits seen in other LHINs' hospitals - **North York West** (83%), **North York Central** (87%), **Western York Region** (71%), and **Eastern York Region** (61%).
- 24% of ambulatory oncology visits to Central LHIN hospitals were by non-Central LHIN residents.

Ambulatory Oncology	Central	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory oncology visits	52,281	1,059,358		Increase	
% Inflow oncology visits	23.5%				
<b>LHIN of patient</b>					
Ambulatory oncology visits	123,822	1,057,888		Increase	5,633 -33,291
% Outflow oncology visits	67.7%				
Visits per 1,000 population	65.4	75.7	4th lowest	Increase	56.8 -73.8
Visit rate/1,000 population age 0-17 years	4.8	5.0			3.9 -8.0
Visit rate/1,000 population age 18-44 years	15.4	15.9			13.3 -16.9
Visit rate/1,000 population age 45-64 years	94.8	106.7	2nd lowest		80.1 -111.0
Visit rate/1,000 population age 65-79 years	224.4	255.4	2nd lowest		186.6 -272.2
Visit rate/1,000 population age 80+ years	194.5	191.6			121.2 -232.4



Ambulatory Oncology - Sub-Region	Central	North York West	North York Central	Western York Region	Eastern York Region	South Simcoe	Northern York Region
<b>LHIN of hospital</b>							
Ambulatory oncology visits	52,281						
% Inflow oncology visits	23.5%						
<b>LHIN of patient</b>							
Ambulatory oncology visits~	123,822	18,134	29,516	33,291	21,764	5,633	15,484
% Outflow oncology visits	67.7%	82.7%	86.6%	70.9%	61.1%	37.6%	27.6%
Visits per 1,000 population	65.4	62.3	73.8	64.1	56.8	73.2	69.4
Visit rate/1,000 population age 0-17 years	4.8	4.3	8.0	3.9	4.4	4.2	4.4
Visit rate/1,000 population age 18-44 years	15.4	14.4	15.2	16.3	16.9	13.7	13.3
Visit rate/1,000 population age 45-64 years	94.8	93.9	94.7	98.5	80.1	111.0	106.8
Visit rate/1,000 population age 65-79 years	224.4	220.3	272.2	217.6	186.6	237.5	227.3
Visit rate/1,000 population age 80+ years	194.5	220.0	232.4	181.3	121.2	206.4	206.3

### Ambulatory Dialysis Utilization

- In 2016/17, there were 127,200 ambulatory dialysis visits to hospital(s) in Central LHIN.
- Since 2014/15, visits in Ontario have increased by 3%. The number of visits to CEN LHIN hospitals increased by 2% and visits by CEN LHIN residents increased by 2%.
- The rate of ambulatory dialysis visits per 1,000 population for residents of Central LHIN is 82.5 (Ontario - 90.4). The rate is among the 4 lowest visit rates in the province.
- Dialysis visits per 1,000 population for age group 0-17 years is 2.1 (Ontario - 1.2) and for age group 80+ years is 481.5 (Ontario - 426.7). These rates are among the 4 highest visit rates in the province for this age group.
- Dialysis visits per 1,000 population for age group 18-44 years is 16.2 (Ontario - 21.8). The rate is among the 4 lowest visit rates in the province for this age group.
- **North York West** has one of the highest visit rates in Ontario in across various age groups 45-64 years (214.4 vs. Ontario – 105.3), 65-79 years (552.9 vs. Ontario 285.3) and 80+ years (771.1 vs. Ontario 426.7).
- Other notable age groups of note when comparing the visits in Central LHIN sub-regions (top 8/bottom 8) to all sub-regions are:
  - Age group 18-44 years, **Northern York Region** (8.4) has among the 8 lowest visit rates in Ontario (21.8)
  - Age group 65-79 years, **Eastern York Region** (130.6) has among the 8 lowest visit rates in Ontario (285.3)
  - Age group 80+ years, **Western York Region** (629.7) has among the 8 highest visit rates while **South Simcoe** (118.6) has among the 8 lowest visit rates in Ontario (426.7).
- 38% of ambulatory dialysis visits by Central LHIN residents were to hospitals outside of Central LHIN. At sub-region level, the highest percentages were seen in **North York Central** (90%) and **Eastern York Region** (49%)
- 23% of ambulatory dialysis visits to Central LHIN hospitals were by non-Central LHIN residents.

*Note: Ambulatory dialysis visit volumes for residents in age group 0-17 are low to none across all sub-regions. Caution*

should be used when interpreting visit rates in this age group.

Ambulatory Dialysis	Central	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory dialysis visits	127,200	1,269,794	4th highest	Increase	
% Inflow dialysis visits	23.2%				
<b>LHIN of patient</b>					
Ambulatory dialysis visits	156,324	1,264,676		Increase	5,727 -45,527
% Outflow dialysis visits	37.5%				
Visits per 1,000 population	82.5	90.4	4th lowest	Stable	48.5 -156.3
Visit rate/1,000 population age 0-17 years	2.1	1.2	2nd highest		0.0 -4.8
Visit rate/1,000 population age 18-44 years	16.2	21.8	2nd lowest		8.4 -31.0
Visit rate/1,000 population age 45-64 years	92.2	105.3			51.3 -214.4
Visit rate/1,000 population age 65-79 years	288.4	285.3			130.6 -552.9
Visit rate/1,000 population age 80+ years	481.5	426.7	3rd highest		118.6 -771.1

Ambulatory Dialysis - Sub-Region	Central	North York West	North York Central	Western York Region	Eastern York Region	South Simcoe	Northern York Region
<b>LHIN of hospital</b>							
Ambulatory dialysis visits	127,200						
% Inflow dialysis visits	23.2%						
<b>LHIN of patient</b>							
Ambulatory dialysis visits~	156,324	45,527	35,952	39,224	18,587	5,727	11,307
% Outflow dialysis visits	37.5%	28.3%	90.3%	7.7%	48.5%	11.4%	5.2%
Visits per 1,000 population	82.5	156.3	89.9	75.5	48.5	74.4	50.7
Visit rate/1,000 population age 0-17 years	2.1	2.2	4.8	1.4	2.7	0.0	0.0
Visit rate/1,000 population age 18-44 years	16.2	31.0	18.1	11.0	12.4	15.4	8.4
Visit rate/1,000 population age 45-64 years	92.2	214.4	93.0	75.5	58.4	96.7	51.3
Visit rate/1,000 population age 65-79 years	288.4	552.9	325.0	270.5	130.6	313.6	220.3
Visit rate/1,000 population age 80+ years	481.5	771.1	436.3	629.7	314.0	118.6	250.1

\*Ranking: Top or bottom 4 ranking in the province, compared to other LHINs.

^ Trend: "Increase/decrease" when there is a change more than 1%, otherwise, "stable"

~ There are some records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables with the LHIN name but as SR unassigned.

## Home Care

### Home Care Patient Referrals

- In 2017/18, there were 75,381 active home care patient referrals in the Central LHIN, which was the third highest in Ontario.
- The West York Region sub-region had the largest proportion of Central LHIN patient referrals at 18,893.
- Across Ontario's sub-regions, the West York Region had the fifth highest number of active patient referrals with 18,893.

### Active Patient Referrals 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
East York Region	10,516	10,958	11,592	
North York Central	14,446	15,191	15,520	
North York West	11,155	11,882	12,713	
Northern York Region	8,720	8,788	9,442	
South Simcoe	3,243	3,435	3,701	
West York Region	17,194	18,080	18,893	5 <sup>th</sup> highest
Out of LHIN Region	1,555	1,775	1,962	
Unknown Region	3,810	2,961	1,558	
CENT Total	70,639	73,070	75,381	

\*Rank based on 2017/18 active patient referrals

### Home Care Referral Rate

- In 2017/18, Central LHIN's utilization rate was the third lowest in the province at 38.9 referrals per 1,000 (compared to 48.2 for Ontario).
- Within the LHIN, the utilization rate ranged from 30.3 referrals per 1,000 in East York Region to 48.1 in South Simcoe.
- Across Ontario's sub-regions, the utilization rate for East York region (30.3) was the fourth lowest rate in the province.

### Referrals (per 1,000 population) 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
Eastern York Region	27.9	28.6	30.3	4 <sup>th</sup> lowest
North York Central	36.7	38.0	38.8	
North York West	38.9	40.8	43.7	
Northern York Region	39.7	39.4	42.3	
South Simcoe	42.9	44.6	48.1	
Western York Region	33.6	34.8	36.4	
CENTRAL Total	37.9	38.6	38.9	

\*Rank based on 2017/18 utilization rates

### Home Care Services

- In Central LHIN, there were 1,290,781 home care visits and 5,290,802 service hours in 2017/18.
- The rate of home care visits was 666.9 per 1,000 population and the rate of service hours was 2,733.7 per 1,000 population.
- Central had the lowest occupational therapy visits per 1,000 population, and the 2<sup>nd</sup> lowest case management visits per 1,000 population.
- The following sub-regions had among the eight highest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - North York West had the 3<sup>rd</sup> highest rate of personal support hours.
  - North York West had the 2<sup>nd</sup> highest rate of total hours.
  - North York Central had the 5<sup>th</sup> highest rate of personal support hours.
  - North York Central had the **highest** rate of total hours.
  - Western York Region had the 6<sup>th</sup> highest rate of nursing shift hours.
  - Northern York Region had the 6<sup>th</sup> highest rate of speech language therapy visits.
- The following sub-regions had among the eight lowest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - North York Central had the 2<sup>nd</sup> lowest rate of social work visits.
  - Western York Region had the 8<sup>th</sup> lowest rate of case management visits.
  - Western York Region had the 5<sup>th</sup> lowest rate of occupational therapy visits.
  - Western York Region had the 6<sup>th</sup> lowest rate of social work visits.
  - Eastern York Region had the 5<sup>th</sup> lowest rate of case management visits.
  - Eastern York Region had the 7<sup>th</sup> lowest rate of nursing visits.
  - Eastern York Region had the 4<sup>th</sup> lowest rate of occupational therapy visits.
  - Eastern York Region had the 4<sup>th</sup> lowest rate of social work visits.
  - Eastern York Region had the 6<sup>th</sup> lowest rate of total visits rate.
  - Northern York Region had the 6<sup>th</sup> lowest rate of occupational therapy visits.
  - Northern York Region had the 8<sup>th</sup> lowest rate of social work visits.
- Between 2014/15 and 2017/18 there was an increase in total visits of 4.4% and an increase in total hours of 41.6% in Central LHIN. During this period nursing visits increased by 12.6%, physiotherapy visits decreased by 40.5%, speech language pathology visits decreased by 16.3%, case management visits increased by 22.1%, nursing shift hours increased by 39.2% and personal support hours increased by 36.0%.
- Between 2014/15 and 2017/18 physiotherapy visit rate decreased by 43.4%, speech language pathology visit rate decreased by 20.3%, case management visit rate increased by 16.3%, nursing shift hours rate increased by 32.6% and personal support hours rate increased by 29.6%.

## Summary of Home Care Service by Type, Central LHIN, 2017/18

	Central LHIN Residents	Ontario Residents*		LHIN % Change 2014/15 to 2017/18	Range across CEN sub-regions**
<b>Service Visits</b>					
<b>All Visits†</b>	1,290,781	11,528,751	2 <sup>nd</sup> highest	4.4%	60,648-318,667
Nursing Visit	899,437	7,539,458	2 <sup>nd</sup> highest	12.6%	40,840-212,025
Physiotherapy	104,540	738,685	Highest	-40.5%	5,492-33,988
Occupational Therapy	49,664	615,215		-1.9%	3,336-14,078
Social Work	1,476	56,973	Lowest	-12.0%	146-410
Nutrition and Dietetic	4,939	47,949		-0.5%	231-1,231
Speech Language Pathology	43,984	273,735	Highest	-16.3%	1,679-15,175
Case Management	182,719	2,211,107		22.1%	8,849-45,383
<b>Service Hours</b>					
<b>All Hours</b>	5,290,802	34,396,919	Highest	41.6%	144,567-1,423,072
Nursing Shift	427,582	2,366,020	Highest	39.2%	11,929-142,490
Personal Support Work and Homemaking	4,663,991	31,319,568	Highest	36.0%	129,718-1,230,570
Respite	199,230	711,331	Highest	n/a	2,920-60,212
<b>Service Visits per 1,000 population</b>					
<b>All Visits per 1,000 population †</b>	666.9	810.2		-0.5%	474.1-888.0
Nursing Visit	464.7	529.8		7.3%	311.6-668.1
Physiotherapy	54.0	51.9		-43.4%	41.4-71.4
Occupational Therapy	25.7	43.2	Lowest	-6.6%	18.0-43.4
Social Work	0.8	4.0	Lowest	-16.2%	0.5-1.9
Nutrition and Dietetic	2.6	3.4		-5.3%	2.3-3.1
Speech Language Pathology	22.7	19.2		-20.3%	14.2-36.9
Case Management	94.4	155.4	2 <sup>nd</sup> lowest	16.3%	75.1-115.0
<b>Service Hours per 1,000 population</b>					
<b>All Hours</b>	2,733.7	2,417.3		34.9%	1,879.0-3,441.3
Nursing Shift	220.9	166.3		32.6%	155.0-274.2
Personal Support Work and Homemaking	2,409.8	2,201.0		29.6%	1,686.0-3,124.0
Respite	102.9	50.0	2 <sup>nd</sup> highest	n/a	37.9-150.6

\*Not all LHINs offer the same services or report case management services in the same manner.

\*\*Service rates per 1,000 population are calculated using 2017/18 service levels divided by 2016 population estimates from the Ministry of Finance. Typically 2017 population estimates would be used but they were not available at the sub-region level at time of calculation.

†Includes visits for respiratory, psychology, and 'other' service types (not shown), which are not consistently reported/available in all LHINs.

n/a – not applicable due to significant changes in funding and recording

## Palliative Care

### Services Received at Home by Palliative Patients FY 2016/2017

	Provincial Ranking	LHIN	Range Across C sub-regions
Percent of patients who received palliative home visits(home servicers or physician) in the last 90 days of life	9	37%	35% to 42%
Percent of patients who received palliative home servicers in the last 90 days of life	3	21%	17% to 26%
Percent of patients who had physician home visits in the last 90 days of life	12	33%	25% to 39%
Percent of patients who receive palliative home services who died in hospital	9	25%	7% to 39%
Percent of palliative care patients discharged home from hospital with the discharge status "Home with Support"	4	84%	78% to 89%
Mean days spent at home/residence in last 6 months of life	4	158 days	156 to 166 days

*†Ranking in the province, compared to other LHINs.*

### Interpretation

- In 2016/2017, 37% of patients in Central LHIN received palliative home visits in the last 90 days of life, which is slightly higher than the provincial value of 36%.
  - Within the Central LHIN, the **North York West** sub-region reported 35% of patients received palliative home visits in the last 90 days of life, where the **Northern York Region** and **Western York Region** sub-regions had the highest percentage at 42%.
- In 2016/2017, the percent of patients in Central LHIN who received palliative home servicer visits in the last 90 days of life was notably lower than the province (21% vs 25%, respectively).
  - **Western York Region** sub-region reported 26% patients received home servicer visits in the last 90 days of life, which were the highest in the Central LHIN.
  - **North York West** sub-region reports the lowest percentage among the sub-regions at 17%.
- In the Central LHIN, the percentage of patients who received physician home visits in the last 90 days of life was 33%, the third highest in the province and greater than the provincial percentage (28%).
  - **South Simcoe** sub-region reported the highest percentage at 39%. **Northern York Region** reported the lowest percentage of patients who received physician home visit in the last 90 days of life at 25%.
- Across Ontario, Central LHIN reported that 25% of patients who received palliative home services who died in hospital, which matches the provincial estimate.
- There is notable variation of percentages of patients who received palliative care who died in hospital across Central sub-regions.
  - The **South Simcoe** sub-region has the lowest percentage of palliative patients dying in hospital at 7%, one of the lowest rates across the province. On the other hand, **North York West** reports 39% of patients who received palliative care died in hospital.

- Across LHINs, Central reports that 84% of palliative care patients discharged home with “Home with Supports” status in 2016/2017, slightly lower than the provincial 85%.
  - Within Central, the sub-regions vary from 78% in **North York West** to 89% in **Eastern York Region** regarding palliative patients discharged with “Home with Supports” status.
- Central LHIN’s mean number of days at home among palliative patients in the last 6 months across all LHINs was 158 days, which is slightly less than the provincial value of 160 days.
  - Central sub-regions vary in mean number of days that palliative patients spend at home in their last 6 months, ranging from 156 days in **North York West** to 166 days in **South Simcoe** sub-region

#### **Palliative Hospital System Indicators, Central (FY 2016/17)**

	<b>Provincial Ranking</b>	<b>LHIN</b>	<b>Range Across the Sub-regions</b>
Percent of patients who had one or more unplanned ED visits in the last 30 days of life	13	58%	55% - 61%
Percent of patients who had two or more unplanned ED visits in the last 30 days of life	6	15%	13% - 16%
Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days	5	20%	14% - 26%
Percent of people who died in hospital (all hospital settings and acute only)	14	58%	40% - 63%
Percent of people who died in acute hospital	10	46%	33% - 56%
Percent of patients who had two or more acute inpatient admissions in the last 30 days of life	10	6%	5% - 7%

#### **LHIN Comparison**

- Central LHIN was **significantly higher** than the province in the following indicators:
  - Percent of patients who had one or more unplanned ED visits in the last 30 days of life
  - Percent of people who died in hospital (all hospital settings and acute only)
  - Percent of people who died in acute hospital
    - For percent of patients who had one or more unplanned ED visits in the last 30 days of life, the following sub-regions were determined to be **significantly higher** than the province: **North York West**, **Western York Region**, and **Eastern York Region**.
    - For percent of patients who had two or more unplanned ED visits in the last 30 days of life, **North York Central** was **significantly lower** than the province.
    - For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, **North York Central** and **Northern York Regional** were **significantly lower** than the province. **North York West** was **significantly higher**.
    - For percent of people who died in hospital (all hospital settings and acute only), **South Simcoe** was **significantly lower** than the province. The following sub-regions were **significantly higher** than the province: **North York West**, **North York Central**, **Western York Region**, and **Eastern York Region**.

- For percent of people who died in acute hospital, **South Simcoe** and **Northern York Region** were **significantly lower** than the province. **North York West** and **Eastern York Region** were **significantly higher**.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, **Western York Region** was **significantly higher** than the province.

### Change Over Time

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, an average annual growth rate of -1% was observed across the Central LHIN ranking 7th provincially.
  - Across sub-regions, **Eastern York Region** (1%) and **South Simcoe** (-1%) were observed highest and lowest, respectively.
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, an average annual growth rate of 1% was observed across the Central LHIN ranking 3rd provincially.
  - Across sub-regions, **South Simcoe** (3%) and **North York West** (-1%) were observed highest and lowest, respectively.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, an average annual growth rate of 1% was observed across the Central LHIN ranking 4th provincially.
  - Across sub-regions, **Western York Region** (6%) and **South Simcoe** (-6%) were observed highest and lowest, respectively.
- For percent of people who died in hospital (all hospital settings and acute only), an average annual growth rate of -2% was observed across the Central LHIN ranking 8th provincially.
  - Across sub-regions, **Eastern York Region** (0%) and **South Simcoe** (-6%) were observed highest and lowest, respectively.
- For percent of people who died in acute hospital, an average annual growth rate of -2% was observed across the Central LHIN ranking 8th provincially.
  - Across sub-regions, **Eastern York Region** (1%) and **South Simcoe** (-7%) were observed highest and lowest, respectively.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, an average annual growth rate of -3% was observed across the Central LHIN ranking 11th provincially.
  - Across sub-regions, **North York Central** (-2%) and **Northern York Region** (-9%) were observed highest and lowest, respectively.



## Emergency Department Utilization

### Emergency Department Utilization

- In 2016/17, there were 620,887 ED visits to Central LHIN hospitals, an increase of 16.5% from 2013/14. In the same time-period, the number of ED visits in the province increased by 6.5%.
- Central's crude ED visit rate of 323.9 ED visits per 1,000 population was 2<sup>nd</sup> lowest in the province, well below the provincial rate (442.2). This represented a 7.5% increase in crude visit rate in the LHIN from 2013/14 during which time the provincial crude visit rate climbed by 3.0%.
- Age adjusted ED visit rates per 1,000 population were highest for seniors 80+ at 839 visits per 1,000 population, followed by seniors aged 65-79 (392 visits / 1,000 population), children aged 0-17 (335 visits per 1,000 population), adults aged 45-64 years (280 visits per 1,000 population) while adults aged 18-44 years had the lowest usage rate in LHIN at 278 visits per 1,000 population, or less than 40% of the highest user age group.
  - **Eastern York Region** residents had the lowest ED visit rate of Central's 6 sub-regions, at 258 visits per 1000 population, the 4<sup>th</sup> lowest sub-region in the province.
  - **South Simcoe** sub-region had the highest crude ED visit rate in the LHIN at 562 visits per 1,000 population.
  - Overall, 5 of Central's 6 sub-regions had crude ED visit rates below the provincial value.
- Between 2013/14 and 2016/17 the number of Central LHIN residents visiting the ED with lower acuity levels (CTAS IV and V) increased 11.4% to 166,541 visits. During this same time-period, visits by Ontario residents with CTAS IV and V declined 2.2%.
- Between 2013/14 and 2016/17 the number of visits with CTAS III increased by 13.0% and CTAS I & II increased by 11.2%, while provincially these numbers increased by 9.4% and 15.8% respectively.
- Overall, Central LHIN ranked 4<sup>th</sup> lowest in the province in proportion of ED visits by residents that were lower acuity (27.1.0% for Central, and 33.5% for the province).
  - 4 out of 6 of Central's sub-regions had a lower proportion of ED visits with lower acuity (CTAS IV and V) than the province.
  - **North York West** had the lowest proportion of ED visits with lower acuity of the LHIN's 6 sub-regions, at 17.9%, the 5<sup>th</sup> lowest rate for a sub-region in the province, while **South Simcoe** had the highest at 38.8%.
- The most common causes for ED visits by Central LHIN residents were diseases or disorders of the digestive system, diseases or disorders of the skin & breast, and diseases or disorders of the ear, nose or throat and accounted for 11.0%, 7.0%, and 6.8% of ED visits by Central LHIN residents respectively.
- Follow-up examinations and other non-emergent conditions ranked 7<sup>th</sup> as a cause of ED visits and accounted for 5.1% of ED visits by Central LHIN residents.
- 16.0% of the patients who visited ED in Central LHIN hospitals arrived via ambulance in FY16/17, as compared to 15.6% for the province.
  - The proportion of ED visits that arrived by ambulance ranged from a low of 10.9% in **South Simcoe** sub-region to a high of 19.3% in **North York West**.
- 9.2% of the patients who visited ED in Central LHIN hospitals were admitted in FY16/17, as compared to 9.8% for the province.
  - The proportion of ED visits that resulted in a patient being admitted to hospital ranged from a low of 7.0% in **South Simcoe** sub-region to a high of 12.5% in **North York Central**, the 6<sup>th</sup> highest admission rate for a sub-region in the province.

- 2.4% of the patients who visited ED in Central LHIN hospitals left without completing treatment in FY16/17, as compared to 3.9% for the province. Central ranked 6<sup>th</sup> in the province in visits that left without completing treatment.
- 22.5% of ED visits to Central LHIN hospitals were by patients who did not reside in Central LHIN (inflow). This compares to 21.5% of ED visits by Central LHIN residents that were accessed in other LHINs (outflow).

### Top 10 Reasons for Emergency Department Visits by LHIN, 2016/17

Leading CACS groups, by LHIN of patient	Central	
	#	% of total visits
(B128) Disease or Disorder Digestive System	67,240	11.0%
(B132) Disease or Disorder Skin & Breast	43,184	7.0%
(B112) Disease or Disorder Ear, Nose or Throat	41,532	6.8%
(B122) Other Disease or Disorder Cardiac System	39,713	6.5%
(B136) Disease or Disorder Musculoskeletal and Connective Tissue	36,581	6.0%
(B180) Contusion, Dislocation, Nerve & Other Soft Tissue Injury	36,376	5.9%
(B187) Follow-up Examination and Other Non Emergent Condition	31,037	5.1%
(B005) Other Condition with Acute Admission/Transfer	29,669	4.8%
(B116) Disease or Disorder Respiratory System	26,338	4.3%
(B188) Open Wound and Vascular Injury	24,617	4.0%

Measure—LHIN of Hospital	Central		Ontario	
	#	LHIN % change 2013/14-2016/17	#	Ontario % change 2013/14-2016/17
Visits	620,887	16.5%	6,312,121	6.5%
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	153,303	13.6%	1,284,741	15.9%
III (urgent)	293,578	19.3%	2,876,687	9.6%
IV & V (less urgent/non urgent)	173,652	14.2%	2,128,914	-2.0%
<b>% visits by CTAS level†</b>				
I & II (resuscitation/emergent)	24.7%		20.4%	
III (urgent)	47.3%		45.6%	
IV & V (less urgent/non urgent)	28.0%		33.7%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	16.0%		15.6%	
% of visits that were admitted	9.2%		9.8%	
% of visits that left without completing treatment	2.4%		3.9%	
<b>% Inflow visits</b>	22.5%			

Measure—LHIN of Patient	Central		Ontario	
	#	LHIN % change 2013/14- 2016/17	#	Ontario % change 2013/14- 2016/17
Visits	613,426	12.1%	6,183,151	6.4%
ED visit rate/1,000 population	323.9	7.5%	442.2	3.0%
<b>Age-specific ED visit rates per 1,000 population</b>				
ED visit rate, age 0-17 years	335		429	
ED visit rate, age 18-44 years	278		411	
ED visit rate, age 45-64 years	280		388	
ED visit rate, age 65-79 years	392		516	
ED visit rate, age 80+ years	839		913	
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	153,765	11.2%	1,265,237	15.8%
III (urgent)	292,643	13.0%	2,825,385	9.4%
IV & V (less urgent/non urgent)	166,541	11.4%	2,070,962	-2.2%
<b>% visits by CTAS level</b>				
I & II (resuscitation/emergent)	25.1%		20.5%	
III (urgent)	47.7%		45.7%	
IV & V (less urgent/non urgent)	27.1%		33.5%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	16.5%		15.8%	
% of visits that were admitted	10.4%		9.9%	
% of visits that left without completing treatment	2.5%		3.8%	
% Outflow visits	21.5%			

# ED Visit Utilization Summary, by sub-region of Patient Residence, 2016/17 Central LHIN

	North York West	North York Central	Western York Region	Eastern York Region	South Simcoe	Northern York Region	LHIN	Ontario
<b>sub-region of patient residence</b>								
Visits	116,332	117,505	151,816	98,938	43,212	85,630	613,426	6,183,151
ED visit rate/1,000 population	399	294	292	258	562	384	323.9	442
% Outflow to other LHINs	31.3%	31.6%	17.4%	19.5%	12.2%	8.7%	21.5%	
<b>Age-specific ED visit rates per 1,000 population</b>								
ED visit rate, age 0-17 years	370	327	294	309	633	345	335	429
ED visit rate, age 18-44 years	337	224	247	224	563	376	278	411
ED visit rate, age 45-64 years	385	247	262	203	440	334	280	388
ED visit rate, age 65-79 years	493	403	352	300	588	445	392	516
ED visit rate, age 80+ years	1005	805	839	638	1042	930	839	913
<b># visits by CTAS level</b>								
# CTAS Level I & II visits	26698	31198	45239	24683	7640	18307	153,765	12715
# CTAS Level III visits	68748	57530	69221	42238	18784	36127	292,643	20741
# CTAS Level IV & V visits	20830	28739	37048	31978	16783	31165	166,541	13353
<b>% visits by CTAS level</b>								
I & II (resuscitation/emergent)	22.9%	26.6%	29.8%	24.9%	17.7%	21.4%	25.1%	20.5%
III (urgent)	59.1%	49.0%	45.6%	42.7%	43.5%	42.2%	47.7%	45.7%
IV & V (less urgent/non urgent)	17.9%	24.5%	24.4%	32.3%	38.8%	36.4%	27.1%	33.5%
<b>Other visit characteristics</b>								
% of visits that arrived by ambulance	19.3%	18.8%	15.4%	14.4%	10.9%	16.9%	16.5%	15.8%
% of visits that were admitted	10.9%	12.5%	9.9%	10.2%	7.0%	9.8%	10.4%	9.9%
% of visits that left without completing treatment	3.2%	2.8%	2.6%	1.7%	2.0%	1.9%	2.5%	3.8%

## Emergency Department Performance

- Emergency department (ED) volumes increased steadily from fiscal year 2013/14 (533,138 visits) to 2017/18 (635,614 visits).
- Overall, the 90<sup>th</sup> percentile ambulance offload time in fiscal year 2017/18 (30 mins) decreased since fiscal year 2013/14 (56 mins), with a range of 23 to 48 minutes across Central LHIN sites in fiscal year 2017/18.
- The 90<sup>th</sup> percentile time to physician initial assessment (PIA) had remained fairly consistent over time (three hours both in fiscal years 2013/14 and 2017/18), with the percent within two hour target for PIA increasing slightly from fiscal year 2013/14 (81%) to fiscal year 2015/16 (85%), and decreasing again until fiscal year 2017/18 (82%).
- The 90<sup>th</sup> percentile consult request to arrival time remained stable from fiscal year 2013/14 to fiscal year 2017/18, both being five hours, with Central LHIN's sites having a range of one to six hours in 2017/18. The percentage of consults within two hours from request decreased from fiscal year 2013/14 (66%) to 2017/18 (61%) with Central LHIN sites ranging from 47% to 100%.
- The 90<sup>th</sup> percentile time to disposition remained stable (seven hours) from fiscal year 2013/14 to 2017/18, with Central LHIN sites ranging from two to eight hours in fiscal year 2017/18.
- The 90<sup>th</sup> percentile ED length of stay increased slightly from fiscal year 2013/14 (eight hours) to 2017/18 (nine hours), with Central LHIN sites ranging from three to 11 hours in fiscal year 2017/18.
- Non-admitted low acuity ED volumes increased steadily from fiscal year 2013/14 (150,856) to 2016/17 (172,731) and then decreased in 2017/18 (161,971).
- For non-admitted low acuity visits, the ED length of stay and 90<sup>th</sup> percentile time to disposition both remained stable over time from fiscal year 2013/14 to 2017/18. Both remained within the range of three to four hours for all fiscal years and Central LHIN sites had a range of two to four hours for both measures in 2017/18.
- The percent of non-admitted low acuity visits within target of four hours decreased slightly over time, from 93% in fiscal year 2013/14 to 91% in 2017/18. In fiscal year 2017/18, Central LHIN sites ranged from 89%-100%.
- The volumes of non-admitted high acuity ED visits increased steadily over time from fiscal year 2013/14 (329,145) to 2017/18 (411,693), with Central LHIN sites ranging from 1,348 visits to 108,498 visits in fiscal year 2017/18.
- From fiscal year 2013/14 to 2017/18, the 90<sup>th</sup> percentile time to disposition (seven hours), ED length of stay (seven hours) and percentage within target of eight hours (94%) for non-admitted high acuity visits all remained stable.
- The volumes of ED admissions had also increased steadily over time from fiscal year 2013/14 (53,104) to fiscal year 2017/18 (60,084). Across all years, the admission rates increased with acuity across all CTAS levels.
- The 90<sup>th</sup> percentile time to disposition for ED admissions had stayed relatively stable over time; remaining 12 hours in both fiscal years 2013/14 and 2017/18, while Central LHIN sites ranged from 7.8 to 13 hours in fiscal year 2017/18.
- For admitted ED visits, the 90<sup>th</sup> percentile time to inpatient bed and for ED length of stay both increased from fiscal year 2013/14 to 2017/18; the time to inpatient bed from 22 to 26 hours, with Central LHIN sites ranging from 5.3 to 45 hours in fiscal year 2017/18, and ED length of stay from 29 to 34 hours, with Central LHIN sites ranging from 14.6 to 53 hours in fiscal year 2017/18. The percentage within target of eight hours for ED admissions decreased from fiscal year 2013/14 (33%) to 2017/18 (29%), with Central LHIN sites ranging from 17% to 59% in 2017/18.

## Emergency department visits, Central LHIN

Measure	Fiscal Year					Range across sites, FY 17/18
	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	
All emergency department visits						
ED Volumes (All)	533,138	558,947	591,643	620,887	635,614	3,266 - 139,900
Ambulance Offload Time - 90th Percentile (mins)	56	70	55	39	30	23 - 48
Time to PIA - 90th percentile	3	3	2	2	3	1 - 3
% with Time to PIA <= 2 Hours	81%	83%	85%	83%	82%	72% - 99%
Consult Request to Arrival - 90th Percentile	5	4	5	5	5	1 - 6
% of Consults with Consult Request to Arrival <= 2 Hrs	66%	69%	68%	64%	61%	47% - 100%
Time to Disposition (All) - 90th Percentile	7	7	7	7	7	2 - 8
ED LOS - 90th Percentile	8	8	8	8	9	3 -11
Non-admitted low acuity ED visits						
ED Volumes - Non-Admitted Low Acuity	150,856	156,715	166,000	172,321	161,971	1,918 - 36,332
% Within Target of 4 Hrs - Non-Admitted Low Acuity	93%	94%	94%	94%	91%	89% - 100%
Time to Disposition for Non-Admitted Low Acuity - 90th Percentile	3	3	3	3	4	2 - 4
ED LOS for Non-Admitted Low Acuity - 90th Percentile	4	3	3	4	4	2 - 4
Non-admitted high acuity ED visits						
ED Volumes - Non-Admitted High Acuity	329,145	346,929	370,497	390,819	411,693	1,348 - 108,498
% Within Target of 8 Hrs - Non-Admitted High Acuity	94%	95%	95%	95%	94%	91% - 100%
Time to Disposition for Non-Admitted High Acuity - 90th Percentile	7	7	7	7	7	2 - 7
ED LOS for Non-Admitted High Acuity - 90th Percentile	7	7	7	7	7	3 - 8
Admitted ED visits						
ED Volumes - Admitted	53,104	55,270	55,088	57,394	60,084	0 - 13,725
Admission Rate - CTAS 1	54%	53%	52%	51%	50%	0% - 57%
Admission Rate - CTAS 2	22%	22%	21%	21%	21%	0% - 25%
Admission Rate - CTAS 3	8%	8%	8%	8%	8%	0% - 11%
Admission Rate - CTAS 4	1%	1%	1%	1%	1%	0% - 2%
Admission Rate - CTAS 5	0%	0%	0%	0%	1%	0% - 1%
Time to Disposition for Admitted - 90th Percentile	12	11	11	11	12	7.8 - 13
ED LOS for Admitted - 90th Percentile	29	33	31	33	34	14.6- 53
% Within Target of 8 Hrs - Admitted	33%	32%	31%	28%	29%	17% - 59%
Time to Inpatient Bed - 90th Percentile	22	26	24	26	26	5.3 - 45

## Acute Care

### Acute Care Utilization by Residents of the Central LHIN

#### Acute Separations

- In 2016/17, there were 111,274 acute separations (discharges), 584,272 acute days, and 687,065 total days (including acute and alternate level of care days) for Central LHIN residents.
- The acute separation rate for Central LHIN residents was 59 separations per 1,000 residents in 2016/17, 2<sup>nd</sup> lowest amongst LHINs.
- Rates were the lowest for residents of the **Eastern York Region** sub-region and highest for residents of **North York West**.
- From 2013/14 to 2016/17, the overall acute separation rate for Central LHIN residents declined by 1.8%.
  - Residents of the **Western York Region** and **Eastern York Region** sub-regions were among the 8 lowest ranked Ontario sub-regions for the rate of acute separations per 1,000 residents – with rates much lower than Ontario.

#### Acute Days

- The rate of acute days for Central LHIN residents was 317 acute days per 1,000 residents in 2016/17, least amongst LHINs.
  - Rates were the lowest for residents of the **Eastern York Region** sub-region (244) and highest for **North York West** (439) in 2016/17.
  - Among Central LHIN sub-regions, both **Western York Region** and **Eastern York Region** were in the lowest ranking Ontario sub-regions for the rate of acute days per 1,000 residents – with rates lower than Ontario.

#### Mean Length of Stay

- The mean total length of stay (including acute days and days waiting for an alternate level of care) for Central LHIN residents was 6.2 days, while the mean acute length of stay was 5.3 days in 2016/17.

#### HIG Weight

- The Ontario HBAM Inpatient Grouper (HIG) (similar to CMG+) aggregates acute care separations with similar resource use and clinical characteristics based on most responsible diagnosis and/or principal intervention. The HIG weight is a relative cost value that reflects the resources consumed during each acute care stay. The mean HIG weight for Central LHIN residents increased from 1.48 2014/15 to 1.56 in 2016/17 – a change of 5.4% - and slightly above the provincial value (1.55).
- The top 3 HIGs accounting for the highest proportion of acute care days for Central LHIN residents in 2016/17 were: 196-heart failure without coronary angiogram, 138-viral/unspecified pneumonia, and 810-palliative care.

### Acute Care Hospital Utilization (Excluding ALC) LHIN of Patient, Central LHIN, 2016/17

	Central LHIN Residents	Ontario Residents*	Rank among LHINs	Range across CEN sub-regions
<b>Acute Care Measures</b>				
Total Population	1,893,948	13,982,984		76,938 – 519,746
Acute Separations	111,274	1,028,979		5,771 – 27,091
Acute Separation Rate per 1,000 Population	59	74	2 <sup>nd</sup> Lowest	50 - 75
Acute Days	584,272	5,455,693		28,788 – 133,465
Acute Days Rate per 1,000 Population	309	390	Lowest	244 – 439
Total Days	687,065	6,477,528		31,550 – 158,467
Total Days Rate per 1,000 Population	363	463	2 <sup>nd</sup> Lowest	287 – 513
Mean Acute LOS	5.3	5.3		4.9 – 6.1
Mean Total LOS	6.2	6.3		5.5 – 7.1
Mean HIG Weight	1.56	1.55		—
<b>Leading HIGs (Acute Care Days)†</b>				
(196) Heart Failure w/o Coronary Angiogram	20,755	175,995		644 – 5,313
(138) Viral/Unspecified Pneumonia	14,128	119,810		648 – 4,298
(810) Palliative Care	12,833	110,197		180 – 4,682

\* Ontario residents exclude Out-of-province

† Leading HIGs include Out-of-province for Ontario Values

### Acute Care Utilization for Central LHIN Facilities

- There were 103,029 acute separations, 517,794 acute days, and 616,039 total days at Central LHIN hospitals in 2016/17.

#### Separations

- Separations increased by 6.1% between 2013/14 and 2016/17. During this same period, for Ontario hospitals overall, separations increased by 3.8%.

#### Acute Days

- Acute days increased by 12.9% between 2013/14 and 2016/17. Acute days increased by 2.2%, for all Ontario hospitals overall, during this same period.
- Mean acute length of stay for 2016/17 at hospitals in the Central LHIN was 5.0 days. This is lower than the provincial result of 5.3 days.



### Total Days

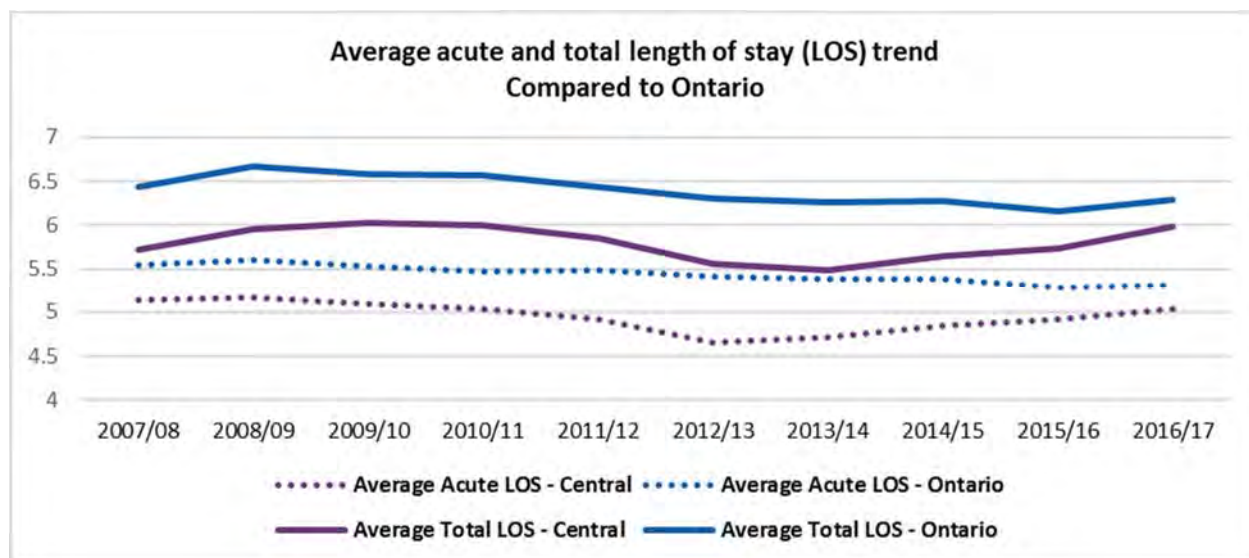
- Total days increased by 15.5% between 2013/14 and 2016/17. Overall Ontario hospitals had an increase of 4.2% of total days during this period.
- Mean total length of stay for this LHIN was 6.0 days. Lower than the mean total length of stay for Ontario, which was 6.3 days.

### Mean Ontario HBAM Group (HIG) Weight

- Mean HIG weight for Central LHIN hospitals in 2016/17 of 1.42 was lower than the provincial value of 1.55.

### Acute care hospital utilization, Central LHIN, 2016/17

Measure	Central LHIN	Ontario hospitals	Comments	LHIN % change 2013/14 - 2016/17	Range within LHINs
Acute separations	103,029	1,041,308		6.1%	26,295 - 159,315
Total days	616,039	6,542,800		15.5%	193,259 - 1,050,391
Mean total LOS	6.0	6.3			5.0 - 7.3
Acute days	517,794	5,518,912		12.9%	142,875 - 917,167
Mean acute LOS	5.0	5.3			4.5 - 5.8
Mean HIG weight	1.42	1.55			1.23 - 1.94



### Acute Care Inflow/Outflow

#### Inflow

- 29.4% of hospital separations from Central LHIN hospitals were by non-Central LHIN residents
- This is the 2<sup>nd</sup> highest proportion of inflow among all LHINs

### Outflow

- 34.6% of separations for Central LHIN residents were from hospitals outside Central LHIN
- This is the 2<sup>nd</sup> highest proportion of outflow among all LHINs
  - By sub-region, **North York Central** had the 2<sup>nd</sup> highest outflow to other LHINs (46.6%) and **North York West** had the 3<sup>rd</sup> highest (42.1%)

### Inflow - Outflow, Central LHIN, 2016/17

Measure	Central LHIN	Ontario Hospitals	Comments	Range across CENT sub-regions
Acute separations, LHIN of hospital	103,030	1,041,322		4,281 – 18,415
Acute separations, LHIN of patient	111,274	1,041,322		5,771 – 27,091
% inflow	29.4%		2 <sup>nd</sup> highest	NA
% outflow	34.6%		2 <sup>nd</sup> highest	16.4% - 46.6%

## Post-Acute Care

### Inpatient Rehabilitation Utilization

#### Rehabilitation Admissions

- The number of total rehabilitation admissions at the LHIN hospitals, including both general admissions and special admissions, was 1,538 in FY 16/17, a decrease of 65.1% from FY 13/14.
  - The number of general rehabilitation admissions was 1,538 in FY 16/17, a decrease of 64.8% from FY 13/14.
- The number of total rehabilitation admissions of the LHIN residents, was 4,328 in FY 16/17, an increase of 4.0% from FY 13/14.

#### Active Cases and Discharges

- In FY 16/17, the number of active cases was 1,883 while the number of discharges was 1,554.

#### Inpatient Days

- The number of total inpatient days was 33,933 in FY 16/17.
- The mean length of stay at the LHIN hospitals was 21.8 days.
- By sub-region of patient residence:
  - North York West residents had the longest length of stay at 26.4 days.
  - Western York Region residents had the shortest length of stay at 22.2 days.

#### Admission Rate

- The number of admissions per 100,000 adults (age 18+) was 283.9 in FY 16/17, a decrease of 1.2% from FY 13/14.
  - Age group 18-44 years had the lowest admission rate, 27.2 per 100,000 population.
  - Age group 80+ years had the highest admission rate, 2,495.5 per 100,000 population.
- By sub-region of patient residence:
  - North York Central residents had the highest admission rate at 390.1.
  - South Simcoe residents had the lowest admission rate at 184.1.

#### Active Case Rate

- The number of active cases per 1,000 population age 18+ was 338.8.

#### Discharge Rate

- The number of discharges per 1,000 population age 18+ was 284.4.

#### Leading Rehabilitation Group

- The 5 leading rehabilitation groups that contributed to the total admissions in FY 16/17 were:
  - Other disabilities accounted for 939 admissions or 21.7% of the total admissions.
  - Fracture of lower extremity accounted for 791 admissions or 18.3 % of the total admissions.
  - Stroke accounted for 639 admissions or 14.8% of the total admissions.
  - Replacement of lower extremity accounted for 575 admissions or 13.3% of the total admissions.
  - Other orthopaedic accounted for 269 admissions or 6.2% of the total admissions.

#### Outflow

- Hospitals outside the LHIN accounted for 69.1% of the total rehabilitation admissions of the LHIN residents
- By sub-region of patient residence:

- **North York Central** residents had the highest rate of admission to hospitals outside the LHIN at 97.2%.
- **Northern York Region** residents had the lowest rate of admission to hospitals outside the LHIN at 32.7%.

#### Inflow

- 13.0% of the rehabilitation admissions at the hospitals in the LHIN were residents from outside the Central LHIN.

Rehab Admissions, Active Cases, Discharges and Days*	LHIN	Ontario	Ranking Among LHINs**	% Change 2013/14-2016/17***	Range across sub-region
<b>LHIN of hospital</b>					
General admissions	1,538	28,691		-64.8%	
Special admissions		4,444		-100.0%	
Total admissions	1,538	33,135		-65.1%	
% Inflow inpatient rehab admissions	13.0%				
Active Cases	1,883	43,329			
Discharges	1,554	33,133			
Total Days (discharged cases only)	33,933	839,228			
Mean Length of Stay (discharged cases only)	21.8	25.3			
<b>LHIN of patient</b>					
Total population age 18+	1,524,423	11,287,810		5.2%	
Total admissions	4,328	33,016		4.0%	113-1,324
Admissions/100,000 population age 18+	283.9	292.5		-1.2%	184.1-390.1
Admissions/100,000 population age 18-44 years	27.2	30.4			19.5-47.9
Admissions/100,000 population age 45-64 years	138.1	150.9			105.0-192.0
Admissions/100,000 population age 65-79 years	757.3	689.3			470.3-1067.7
Admissions/100,000 population age 80+ years	2,495.5	2,311.8			1,003.2-3,311.4
% Outflow inpatient rehabilitation admissions	69.1%				32.7%-97.2%
Active cases per 1,000 population age 18+	338.8	382.3			255.4-476.2
Discharges per 1,000 population age 18+	284.4	292.5			185.7-386.6
Mean Length of Stay (discharged cases only)	24.2	25.3			22.2-26.4

Measure	North York West	North York Central	Western York Region	Eastern York Region	South Simcoe	Northern York Region
Rehab Admissions	709	1,324	892	822	113	468
Rehab Admission Rate per 100,000 Population	302.8	390.1	219.3	267.4	184.1	267.0
Rehab Active Cases	824	1,616	1,039	952	165	569
Rehab Active Case Rate per 100,000 Population	351.9	476.2	255.4	309.7	268.8	324.6
Rehab Discharges	695	1,312	896	842	114	477
Rehab Discharge Rate per 100,000 Population	296.8	386.6	220.2	273.9	185.7	272.1
Total Inpatient Days (discharged cases only)	18,354	31,933	19,865	20,415	2,719	11,577
Mean LOS (discharged cases only)	26.4	24.3	22.2	24.2	23.9	24.3
<b>Age specific admission rates per 100,000 population</b>						
18-44 years	31.0	19.5	22.5	30.1	47.9	37.1
45-64 years	192.0	161.8	105.0	111.6	133.3	159.5
65-79 years	869.5	1,067.7	627.6	665.8	470.3	645.2
80+ years	2,207.2	3,311.4	2,016.3	2,640.1	1,003.2	2,201.3

Rehab Admissions, by Leading Rehabilitation Groups*	LHIN	% of Total Rehab Admission
<b>LHIN of Patient</b>		
18-Other disabilities	939	21.7%
10-Fracture of lower extremity	791	18.3%
01-Stroke	639	14.8%
11-Replacement of lower extremity	575	13.3%
12-Other orthopaedic	269	6.2%
03-Non-traumatic brain injury		
13-Cardiac		
06-Non-traumatic spinal cord injury		
07-Amputation		
02-Traumatic brain injury		
16-Major multiple trauma		

\* FY 16/17 data unless noted otherwise.

\*\* Top or bottom 4 ranking in the province, compared to other LHINs.

\*\*\* Prior to 2014/15, activity for St. John's Rehab is included in Central LHIN, from 2014/15 onwards, is it included in Toronto Central

## Complex Continuing Care Utilization

### Complex Continuing Care

- In 2016/17, there were 1,377 CCC active cases treated in Central LHIN hospitals and residents from outside the LHIN accounted for 8.9% of these active cases. In 2016/17, there were 1,256 admissions and 1,260 discharges from Central LHIN hospital CCC units. Central LHIN hospitals had a mean LOS of 33.3 days - ranking 1st across LHINs.
- There were reductions in the number of active cases (-2.3%), admissions (-3.4%), and discharges (-3.0%) for Central LHIN hospital CCC units between 2013/14 and 2016/17, while there was a 1.6% increase in total days.
- During the period, the mean length of stay in CCC beds increased from 31.8 days to 33.3 days.
- In 2016/17, there were 2,843 CCC active cases for Central LHIN residents, and 55.9% of these cases were treated in hospitals outside the LHIN.
- The active case rate for Central LHIN residents was lower than the provincial value.

### Utilization of Complex Continuing Care, Central LHIN and Ontario, 2016/17

Measure	Central LHIN		Ontario	
	LHIN Values	% Change 2013/14-2016/17	Provincial Value	% Change 2013/14- 2016/17
<b>LHIN of Hospital</b>				
Active Cases	1,377	-2.3%	29,466	-0.1%
% Inflow	8.9%			
Admissions	1,256	-3.4%	24,108	0.5%
Discharges	1,260	-3.0%	23,995	-0.2%
Total Days	42,012	1.6%	1,855,227	-2.0%
Mean LOS	33.3		77.3	
<b>LHIN of Patient</b>				
Active Cases	2,843	-7.6%	29,366	0.3%
Active cases/100,000 population	150.1	-11.4%	210.0	-2.9%
% Outflow	55.9%			
Admission	2,386	-8.0%	24,022	0.8%
Admissions/100,000 population	126.0		171.8	
Discharges	2,386	-7.5%	23,908	0.1%
Discharges/100,000 population	126.0		171.0	
Total Days	164,113	-10.3%	1,850,599	-1.1%
Mean LOS	68.8		77.4	

## Alternate Level of Care

### LHIN overview<sup>7</sup>

Central LHIN						
Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Rank
Acute ALC Days (closed cases)	74,451	80,642	81,781	98,243	NV	10
% ALC Days (Acute Inpatient closed cases)	14.0%	14.3%	14.4%	15.9%	NV	8
Volume of Closed Cases	6,737	6,940	6,112	5,928	5,866	12
Volume of Closed Cases - Home with CCAC Services	2,253	2,234	1,496	1,398	1,258	
Volume of Closed Cases - Long Term Care	413	557	772	723	720	
Volume of Closed Cases - Rehabilitation	1,499	1,681	1,664	1,669	1,687	
90 <sup>th</sup> Percentile Wait of Closed Cases (Days)	28	28	34	38	36	3
90 <sup>th</sup> Percentile Wait of Closed Cases - Home with CCAC Services	27	26	22	19	19	
90 <sup>th</sup> Percentile Wait of Closed Cases - Long Term Care	105	114	146	221	221	
90 <sup>th</sup> Percentile Wait of Closed Cases - Rehabilitation	15	13	12	14	14	
Volume of Open Cases on the last day of the year	257	259	310	284	260	7
Volume of Open Cases - Complex Continuing Care	14	14	19	15	27	
Volume of Open Cases - Home with CCAC Services	104	53	34	24	28	
Volume of Open Cases - Long Term Care	19	104	157	148	103	
90 <sup>th</sup> Percentile Wait of Open Cases	66	124	174	240	163	3
90 <sup>th</sup> Percentile Wait of Open Cases - Complex Continuing Care	51	40	82	84	70	
90 <sup>th</sup> Percentile Wait of Open Cases - Home with CCAC Services	53	46	27	240	66	
90 <sup>th</sup> Percentile Wait of Open Cases - Long Term Care	523	237	273	282	302	
Throughput Ratio (discharged case/newly added cases)	1.00	1.00	0.99	1.01	0.99	9
% of Cases Designated ALC Within 1 Day	6.6%	6.7%	6.2%	4.5%	3.5%	2
% of Cases Designated ALC Within 2 Days	11.2%	11.5%	10.6%	8.7%	7.4%	3
% of Cases Designated ALC Within 3 Days	17.3%	18.3%	16.6%	14.9%	13.2%	4
ALC Rate - All Inpatient Services	12.9%	13.8%	14.5%	15.7%	14.8%	8
ALC Rate - Acute Inpatient Services	14.5%	15.3%	16.0%	17.0%	16.2%	7
ALC Rate - Post-Acute Inpatient Services	6.5%	7.8%	8.4%	9.7%	8.7%	4
ALC Rate - CCC Inpatient Services	13.0%	13.2%	14.2%	14.9%	15.1%	5
ALC Rate - Rehab Inpatient Services	6.6%	7.7%	11.0%	11.1%	10.0%	9
ALC Rate - Mental Health Inpatient Services	1.8%	3.9%	2.7%	5.4%	3.7%	3

<sup>7</sup> One hospital facility in the Central LHIN does not participate in WTIS reporting.

## Closed ALC Cases

### Acute ALC Days

- Acute ALC Days increased by 23,792 from FY 13/14 to FY 16/17.

### % ALC Days (Acute Inpatient)

- % ALC Days increased from 14.0% in FY 13/14 to 15.9% in FY 16/17

### Volume of Closed Cases

- The volume of closed cases for all inpatient services decreased by 13% from 6,737 in FY 13/14 to 5,866 in FY 17/18.
  - Home with CCAC Services – number of closed cases decreased by 44% from 2253 in FY 13/14 to 1258 in FY 17/18
  - Long-term Care – number of closed cases increased by 74% from 413 in FY 13/14 to 720 in FY 17/18
  - Rehabilitation – number of closed cases increased by 13% from 1,499 in FY 13/14 to 1,687 in FY 17/18

### 90th Percentile Wait of Closed Cases

- The wait time for closed cases (all inpatients services and all discharge destinations) increased by 29% from 28 days in FY 13/14 to 36 days in FY 17/18. 12th in Central at the end of FY 17/18.
  - Home with CCAC Services – wait time decreased by 30% from 27 days in FY 13/14 to 19 days in FY 17/18.
  - Long-term Care – wait time increased by 110% from 105 days in FY 13/14 to 221 days in FY 17/18.
  - Rehabilitation – wait time decreased by 7% from 15 days in FY 13/14 to 14 days in FY 17/18.

#### *Wait Time by Sub-Region of Patient Residence*

- **North York West** residents had the longest wait in the LHIN at 62 days; **Western York Region** had the shortest at 24 days.
- **Western York Region** tied 3<sup>rd</sup> lowest in province

## Open ALC Cases

### Volume of Open Cases

- The number of ALC waitlist entries open across all inpatient bed types increased by 1% from 257 at the end of FY 13/14 to 260 at the end of FY 17/18.
  - Complex Continuing Care – number of open cases increased by 93% from 14 at the end of FY 13/14 to 27 at the end of FY 17/18.
  - Home with CCAC Services – number of open cases decreased by 73% from 104 at the end of FY 13/14 to 28 at the end of FY 17/18.
  - Long-term Care – number of open cases increased by 442% from 19 at the end of FY 13/14 to 103 at the end of FY 17/18.

### 90th Percentile Wait of Open Cases

- The wait time for open cases (all inpatients services and all discharge destinations) increased by 147% from 66 days at the end of FY 13/14 to 163 days at the end of FY 17/18. Patients awaiting discharge from Central LHIN hospitals had waited 127 days longer than patients who were discharged in 17/18, and had waited the 3<sup>rd</sup> shortest across LHINs at the end of FY 17/18.
  - Complex Continuing Care – wait time increased by 37% from 51 days at the end of FY 13/14 to 70 days at the end of FY 17/18.
  - Home with CCAC Services – wait time increased by 25% from 53 days at the end of FY 13/14 to 66 days at the end of FY 17/18.



- Long-term Care - wait time decreased by 42% from 523 days at the end of FY 13/14 to 302 days at the end of FY 17/18.

#### *Wait Time by Sub-Region of Patient Residence*

- North York Region residents had the longest wait in the LHIN at 309 days; Western York Region had the shortest at 109 days

#### **ALC Wait Time (Days) by Sub-Region of Patient Residence**

Central LHIN					
Closed & Open Cases - All Discharge Destinations by Sub-Region	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
<i>90<sup>th</sup> Percentile Wait of Closed Cases</i>					
801 NORTH YORK WEST	39	37	54	78	62
802 NORTH YORK CENTRAL	29	27	28	31	29
803 WESTERN YORK REGION	22	21	24	24	24
804 EASTERN YORK REGION	25	29	39	44	33
805 SOUTH SIMCOE	23	30	32	47	34
806 NORTHERN YORK REGION	31	39	35	38	41
<i>90<sup>th</sup> Percentile Wait of Open Cases</i>					
801 NORTH YORK WEST	179	155	297	485	269
802 NORTH YORK CENTRAL	290	279	330	284	284
803 WESTERN YORK REGION	214	295	219	171	109
804 EASTERN YORK REGION	48	109	275	235	277
805 SOUTH SIMCOE	101	78	0	0	200
806 NORTHERN YORK REGION	95	134	162	183	309

## Hospital Processes and Capacity

### ALC Throughput Ratio

- In Central LHIN hospitals, the throughput ratio decreased from 1.00 in FY 13/14 to 0.99 in FY 17/18.

### Percentage of Patients Designated ALC within 1, 2 & 3 Days of Admission

- The percentage of patients that were designated as requiring an alternate level of care within one, two and three days of admission to hospital decreased in the Central LHIN from FY 13/14 to FY 17/18. All 3 measures are ranked 13th, 12th, 11<sup>th</sup> respectively.

### ALC Rate (All Inpatient Services)

- The annual ALC rate for all inpatient beds increased from 12.9% in FY 13/14 to 14.8% in FY 17/18.
- In FY 17/18, the ALC rate in Central hospitals was below the provincial rate of 15.4%.

#### Acute I/P Services

- The ALC rate in Central hospitals increased over the past 5 fiscal years (14.5% FY 13/14; 16.2% FY 17/18) and is steady with the provincial value.

#### Post-Acute I/P Services

- The ALC rate in Central hospitals increased over the past 5 fiscal years (6.5% FY 13/14; 8.7% FY 17/18). Central hospitals are below the provincial post-acute ALC rate (11<sup>th</sup> in ON).
  - CCC Inpatient Services – 10<sup>th</sup> across LHINs for FY 17/18. Rate increased from 13.0% in FY 13/14 to 15.1% in FY 17/18.
  - Rehab Inpatient Services - Rate increased from 6.6% in FY 13/14 to 10.0% in FY 17/18.
  - Mental Health Inpatient Services – 12<sup>th</sup> across LHINs for FY 17/18. Rate increased from 1.8% in FY 13/14 to 3.7% in FY 17/18.

### LHIN/Facility/Site – Annual ALC Rate

Province/LHIN/Facility/Site			Annual ALC Rate					% Change FY 13/14 to FY 17/18
			FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	
<b>Provincial</b>			<b>13.8%</b>	<b>13.7%</b>	<b>13.9%</b>	<b>14.8%</b>	<b>15.4%</b>	
<b>LHIN</b>	<b>8</b>	<b>Central</b>	12.9%	13.8%	14.5%	15.7%	14.8%	1.9%
<b>Facility</b>	596	STEVENSON MEMORIAL HOSPITAL ALLISTON	19.5%	22.6%	19.6%	14.9%	15.9%	(-3.6%)
<b>Facility</b>	632	NORTH YORK GENERAL HOSPITAL	15.0%	16.5%	15.5%	17.9%	16.8%	1.9%
<b>Facility</b>	701	MACKENZIE HEALTH	11.9%	14.2%	14.0%	15.3%	11.9%	0.0%
<b>Facility</b>	736	SOUTHLAKE REGIONAL HEALTH CENTRE	10.0%	12.8%	12.5%	14.9%	16.4%	6.3%
<b>Facility</b>	880	ST JOHN'S REHABILITATION HOSPITAL	N/A	N/A	N/A	N/A	N/A	
<b>Facility</b>	905	MARKHAM STOUFFVILLE HOSPITAL	6.5%	11.0%	12.5%	13.0%	17.2%	10.6%
<b>Site</b>	4235	MARKHAM STOUFFVILLE HOSPITAL	6.2%	10.4%	12.1%	12.2%	17.1%	11.0%
<b>Site</b>	4467	MARKHAM STOUFFVILLE HOSP-UXBRIDGE SITE	10.8%	18.0%	18.6%	22.7%	17.9%	7.1%
<b>Facility</b>	941	HUMBER RIVER REGIONAL HOSPITAL	17.1%	12.9%	16.4%	16.3%	13.0%	(-4.1%)
<b>Site</b>	4089	HUMBER RIVER-YORK-FINCH	22.7%	20.1%	28.9%	N/A	N/A	
<b>Site</b>	4260	HUMBER RIVER -HUMBER MEM	16.5%	9.6%	11.1%	N/A	N/A	
<b>Site</b>	4672	HUMBER RIVER REGIONAL HOSPITAL - NORTHWESTERN	0.3%	2.8%	1.0%	N/A	N/A	
<b>Site</b>	4802	HUMBER RIVER HOSPITAL - WILSON SITE	N/A	N/A	16.2%	16.3%	13.0%	(-3.2%)

\*If all 5 years are not available, then available years used to calculate % change

- In FY 17/18, Markham Stouffville Hospital had the highest ALC Rate across the Central LHIN at the facility level, with Markham Stouffville Hospital – Uxbridge having the highest site level rate.
- St. Joseph's Health had the greatest increase in ALC Rate since FY 13/14 (+11.0%)
- Stevenson Memorial Hospital Alliston had the greatest decrease in ALC Rate since FY 13/14 (-3.6%).

## Long-Term Care

### Long-Term Care Bed Supply

- 46 LTC homes are licensed and approved to operate in the Central LHIN.
- As of February 2018, there were a total of 7,247 Long-Term Care beds in operation in the Central LHIN.
  - With the exception of 175 beds designated as Short-stay, Respite or Convalescent care beds, almost all of the LTC beds are designated Long-Stay Beds or Interim beds.

### Long-Term Care Waitlist & Placements

- Of the 1,847 patients placed in the Central LHIN Long-Term Care Homes in FY 2017/18, approximately 79% were from the community while only 11% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- Of the 2,100 residents of the Central LHIN placed in Ontario Long-Term Care Homes in FY 2017/18, approximately 82% were from the community while only 11% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- The median time to placement in the Central LHIN long-term care home, as of March 2018, was 189 days.
  - Half of community patients waited less than 203 days for a placement in a the Central LHIN LTC home while half of hospital patients waited less than 163 days for placement in a the Central LHIN LTC Home.
- The median time to placement for the Central LHIN resident to be placed in a long-term care home, as of March 2018, was 206 days.
  - Half of community patients from the Central LHIN waited less than 226 days for a placement in an Ontario LTC home while half of hospital patients waited less than 140 days for placement.
- As of March 2018, there were 4,661 patients on the waitlist waiting for placement in a Long-Term Care home in the Central LHIN (not including patients awaiting transfer from one LTC home to another).
- As of March 2018, there were 5,026 residents of the Central LHIN on the waitlist waiting for placement in an Ontario Long-Term Care home (not including patients awaiting transfer from one LTC home to another).

### Long-Stay Demand

- As of March 2018, there were 6,996 long-stay residents occupying LTC Homes within the Central LHIN.
- When adjusted for the size of the older population, the Central LHIN has approximately 58 Long-Stay beds per 1,000 people aged 75+.
- The gap between the demand and supply of Long-Term Care Homes in the Central LHIN reflects a shortage of approximately 4,585 Long-Stay beds.
  - The largest gap is in the [Western York Region](#) sub-region (1,564 beds) and the smallest gap is in [South Simcoe](#) (258 beds).

### Selected Characteristics of Long-Term Care Home Residents

- In the Central LHIN, 86% of Residents were over the age of 75 with 60% being over the age of 85.
- In 2016/17, the mean age of residents of LTC Homes in the Central LHIN was 85.
- The mean length of stay for residents of LTC Homes in the Central LHIN was 1,061 days (about 2.9 years) with half of residents remaining in LTC homes for less than 649 days.
- Nearly 87% of residents need extensive help with daily activities such as getting out of bed, eating, or toileting; 38% are highly or entirely dependent on staff.
- 85% have some form of cognitive impairment; 33% are severely impaired.
- 45% exhibit some level of aggressive behaviour related to their cognitive impairment or mental health condition with 7% exhibiting very severe aggressive behavior.

- 67% of active LTC residents in the Central LHIN LTC Homes have been identified as having some form of dementia.

### Long-term care home supply, waitlists and placements, and resident characteristics, by LHIN sub-region

	Central		0801		0802		0803		0804		0805		0806	
			North York West		North York Central		Western York Region		Eastern York Region		South Simcoe		Northern York Region	
Long-term care bed supply in the sub-region (February 2018)	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-term care homes	46		9		8		11		7		3		8	
Long-stay beds	7,072	57.6	1,774	87.3	1,576	52.1	1,314	43.3	1,013	43.0	434	89.4	961	70.7
Short-stay, respite & convalescent care beds	175	1.4	41	2.0	19	0.6	54	1.8	3	0.1	2	0.4	56	4.1
Total beds in operation	7,247	59.0	1,815	89.4	1,595	52.7	1,368	45.1	1,016	43.2	436	89.8	1,017	74.8

*†The denominator for the rate calculation refers to the number of sub-region residents age 75+; however the LTC homes/beds may serve individuals from other sub-regions. Therefore, rates should be interpreted with caution.*

	Central		0801		0802		0803		0804		0805		0806	
			North York West		North York Central		Western York Region		Eastern York Region		South Simcoe		Northern York Region	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>By sub-region of long-term care home (patients awaiting placement in a home within the sub-region)</b>														
Long-stay waitlist without transfer patients*	4,661	37.9	713	35.1	669	22.1	1570	51.8	946	40.2	261	53.8	502	36.9
<b>Placements**</b>														
From community			1,467	79.4%	325	71.6%	297	73.3%	268	87.0%	229	88.8%	129	93.5%
From hospital			206	11.2%	42	9.3%	58	14.3%	27	8.8%	21	8.1%	7	5.1%
Total			1,847		454		405		308		258		138	

	Central		0801		0802		0803		0804		0805		0806	
			North York West		North York Central		Western York Region		Eastern York Region		South Simcoe		Northern York Region	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Median time to placement (days)</b>														
From community	203		168.0		189.0		220.0		398.0		229.0		181.0	
From hospital	163		158.0		122.5		174.0		368.0		98.0		133.0	
Total	189		160.5		171.0		192.0		391.0		219.5		172.0	
<b>By sub-region of patient (patients who reside within the sub-region and are awaiting placement in any home)</b>														
Long-stay waitlist without transfer patients* Placements**	5,026	40.9	700	34.5	1292	42.7	1187	39.2	1082	46.0	191	39.3	574	42.2
From community	1,721	82.0%	293	75.5%	427	81.0%	445	86.2%	250	83.9%	79	91.9%	227	79.6%
From hospital	224	10.7%	22	5.7%	67	12.7%	46	8.9%	39	13.1%	7	8.1%	43	15.1%
Total	2,100		388		527		516		298		86		285	
<b>Median time to placement (days)</b>														
From community	226		161.0		202.0		245.0		382.5		231.0		196.0	
From hospital	140		111.5		185.0		84.0		180.0		344.0		108.0	
Total	206		158.5		199.0		207.0		330.5		248.0		189.0	

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents

Placements from other locations (correctional facilities, homeless, out-of-province) are not shown but are included in the total placement values.

	Central		0801		0802		0803		0804		0805		0806	
			North York West		North York Central		Western York Region		Eastern York Region		South Simcoe		Northern York Region	
Long-stay demand (February / March 2018) for LTC homes in the sub-region	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-stay residents	6,996	56.9	1,749	86.1	1,554	51.3	1,308	43.1	1,004	42.7	431	88.8	950	69.9
Long-stay waitlist without transfer patients	4,661	37.9	713	35.1	669	22.1	1,570	51.8	946	40.2	261	53.8	502	36.9
Total demand	11,657	94.9	2,462	121.2	2,223	73.4	2,878	94.9	1,950	82.9	692	142.5	1,452	106.8
Total long-stay supply	7,072	58	1,774	87.3	1,576	52.1	1,314	43.3	1,013	43.0	434	89.4	961	70.7
Difference between supply and demand	4,585	37	688	33.9	647	21.4	1,564	51.6	937	39.8	258	53.1	491	36.1

	Central		0801		0802		0803		0804		0805		0806	
			North York West		North York Central		Western York Region		Eastern York Region		South Simcoe		Northern York Region	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Demography, volume and length of stay (LOS)														
Active LTC Residents*	6,243	50.8	1,514	74.5	1,431	47.3	1,153	38.0	907	38.5	398	82.0	840	61.8
Number of admissions*	2,323	18.9	635	31.3	483	16.0	406	13.4	302	12.8	138	28.4	359	26.4

By age group\*\*

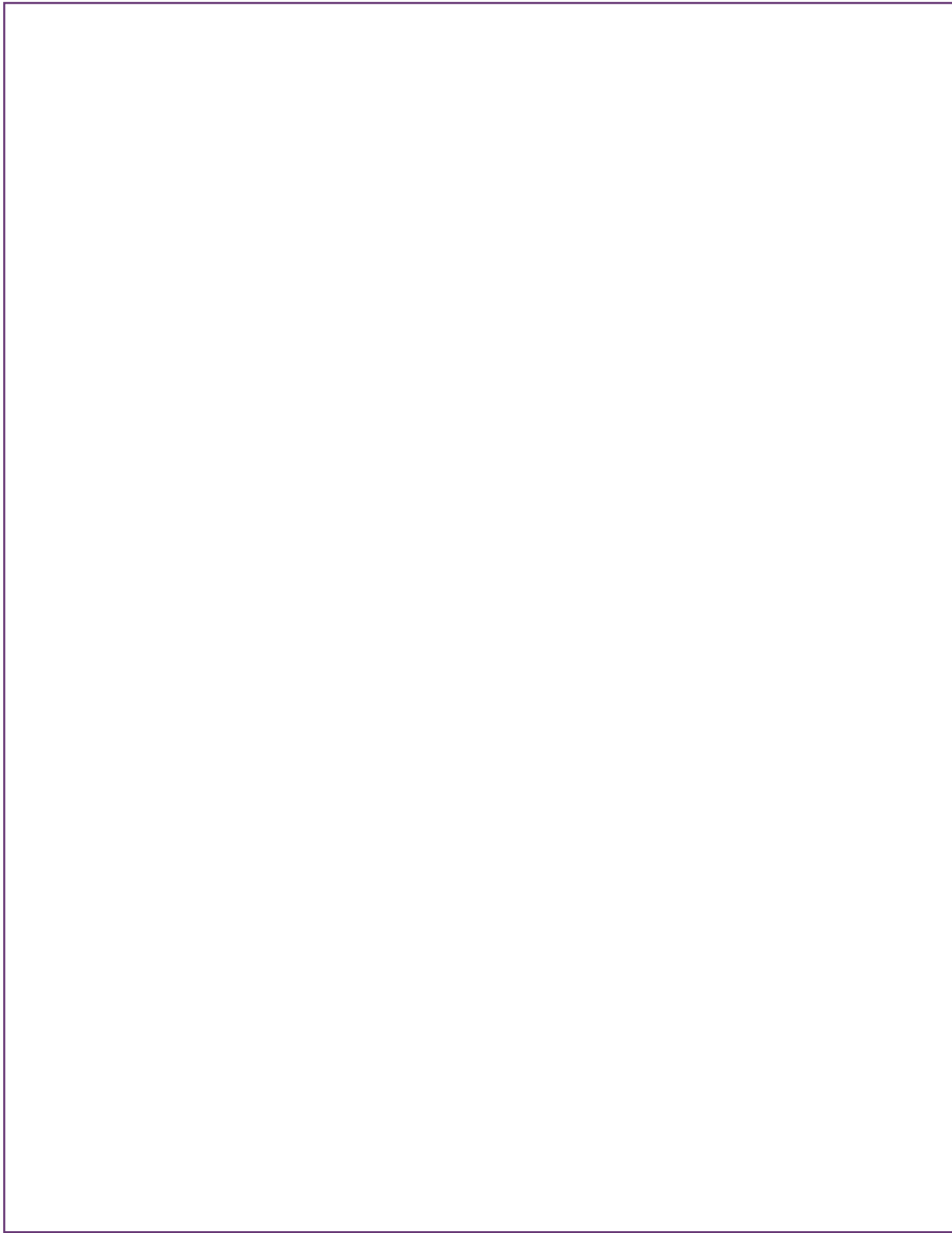


	Central		0801		0802		0803		0804		0805		0806	
			North York West		North York Central		Western York Region		Eastern York Region		South Simcoe		Northern York Region	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Residents age <65	302	4.8%	102	6.7%	73	5.1%	43	3.7%	26	2.9%	13	3.3%	45	5.4%
Residents age 65-74	561	9.0%	147	9.7%	134	9.4%	68	5.9%	60	6.6%	41	10.3%	111	13.2%
Residents age 75-84	1,641	26.3%	401	26.5%	371	25.9%	292	25.3%	234	25.8%	100	25.1%	243	28.9%
Residents age 85+	3,739	59.9%	864	57.1%	853	59.6%	750	65.0%	587	64.7%	244	61.3%	441	52.5%
Mean age of residents	85		84		85		86		86		85		83	
Mean age of residents at admission	84		83		85		85		86		84		83	
<b>Length of stay</b>														
Mean LOS (days)	1,061		901		1,060		1,124		1,343		1,092		998	
Median LOS (days)	649		464		648		728		1,012		737		580	
<b>Residents by level of ADL assistance required**</b>														
None or limited assistance required	812	13.0%	199	13.1%	149	10.4%	181	15.7%	117	12.9%	54	13.6%	112	13.3%
Extensive assistance required	3,057	49.0%	759	50.1%	657	45.9%	515	44.7%	491	54.1%	206	51.8%	429	51.1%
Dependent	2,374	38.0%	556	36.7%	625	43.7%	457	39.6%	299	33.0%	138	34.7%	299	35.6%
<b>Residents by level of aggressive behaviour**</b>														
No signs of aggressive behaviour	3,410	54.6%	828	54.7%	714	49.9%	753	65.3%	523	57.7%	129	32.4%	463	55.1%
Some signs of aggressive behaviour	1,423	22.8%	342	22.6%	312	21.8%	220	19.1%	204	22.5%	142	35.7%	203	24.2%

	Central		0801		0802		0803		0804		0805		0806	
			North York West		North York Central		Western York Region		Eastern York Region		South Simcoe		Northern York Region	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Moderate to severe aggressive behaviour	960	15.4%	205	13.5%	259	18.1%	135	11.7%	133	14.7%	95	23.9%	133	15.8%
Very severe aggressive behaviour	447	7.2%	138	9.1%	146	10.2%	44	3.8%	47	5.2%	32	8.0%	40	4.8%
<b>Cognitive impairment categories **</b>														
Relatively intact	935	15.0%	174	11.5%	211	14.7%	246	21.3%	138	15.2%	40	10.1%	126	15.0%
Mild impairment	3,261	52.2%	861	56.9%	645	45.1%	576	50.0%	459	50.6%	230	57.8%	490	58.3%
Severe impairment	2,047	32.8%	479	31.6%	575	40.2%	331	28.7%	310	34.2%	128	32.2%	224	26.7%
<b>RUG categories **</b>														
1 Extensive Services	332	5.3%	84	5.5%	45	3.1%	93	8.1%	59	6.5%	28	7.0%	23	2.7%
2 Special Rehabilitation	296	4.7%	77	5.1%	80	5.6%	49	4.2%	52	5.7%	24	6.0%	14	1.7%
3 Special Care	623	10.0%	137	9.0%	152	10.6%	93	8.1%	76	8.4%	51	12.8%	114	13.6%
4 Clinically Complex	1,628	26.1%	332	21.9%	446	31.2%	327	28.4%	195	21.5%	111	27.9%	217	25.8%
5 Impaired Cognition	483	7.7%	131	8.7%	85	5.9%	82	7.1%	89	9.8%	25	6.3%	71	8.5%
6 Behavioural Problems	89	1.4%	16	1.1%	13	0.9%	18	1.6%	13	1.4%	14	3.5%	15	1.8%
7 Reduced Physical Functions	2,792	44.7%	737	48.7%	610	42.6%	491	42.6%	423	46.6%	145	36.4%	386	46.0%
<b>Residents with Dementia**</b>	4,207	67.4%	990	65.4%	1,039	72.6%	702	60.9%	644	71.0%	290	72.9%	542	64.5%

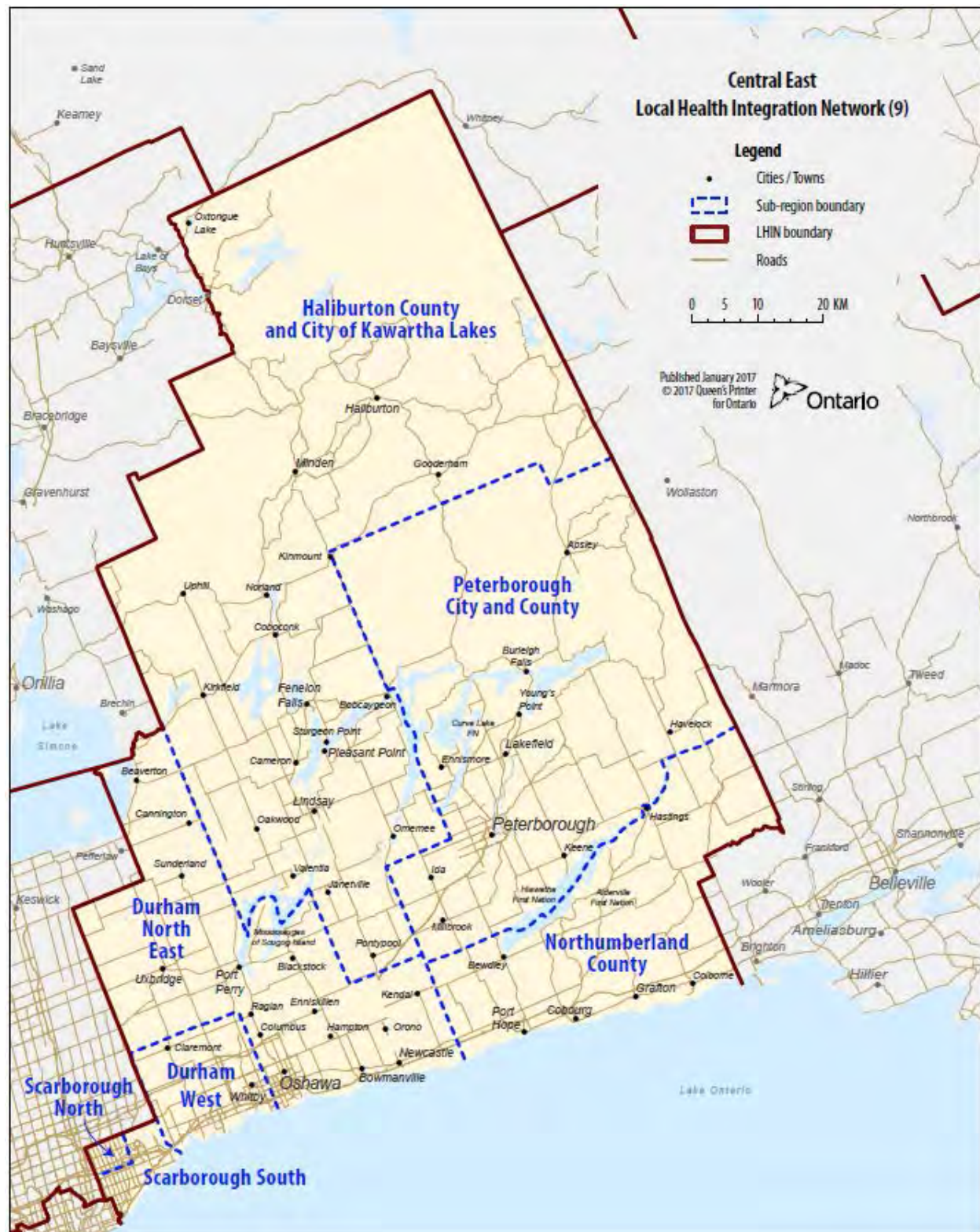
\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents





## 9. Central East LHIN



## Contents

<b>9. Central East LHIN</b>	<b>1</b>
<b>Highlights</b>	<b>1</b>
Central East LHIN .....	1
Residents of Central East LHIN Sub-Regions .....	3
<b>Population Characteristics</b>	<b>11</b>
Population Estimates .....	11
2016 Census Profile .....	12
Births and Mortality .....	19
General Health, Risk Factors, and Prevention .....	24
Chronic Conditions .....	26
<b>Human Resources</b>	<b>42</b>
<b>Primary Care</b>	<b>45</b>
Primary Care Enrolment .....	45
Selected Measures from the Health Care Experience Survey .....	45
<b>Community Care</b>	<b>47</b>
<b>Mental Health</b>	<b>48</b>
Wait Time for Community Services .....	48
Mental Health and Substance Abuse Emergency Department Visits .....	48
Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility .....	49
<b>Surgery and Diagnostic Imaging</b>	<b>51</b>
Analysis of Day Surgery and Cardiac Catheterization Utilization .....	51
Surgical & Diagnostic Imaging Wait Times .....	52
<b>Oncology and Dialysis</b>	<b>61</b>
<b>Home Care</b>	<b>65</b>
<b>Palliative Care</b>	<b>68</b>
<b>Emergency Department</b>	<b>71</b>
Emergency Department Utilization .....	71
Emergency Department Performance .....	76
<b>Acute Care</b>	<b>79</b>
Acute Care Utilization by Residents of the Central East LHIN .....	79
Acute Care Utilization for Central East LHIN Facilities .....	80
Acute Care Inflow/Outflow .....	82
<b>Post-Acute Care</b>	<b>83</b>
Inpatient Rehabilitation Utilization .....	83
Complex Continuing Care .....	87
<b>Alternate Level of Care</b>	<b>88</b>
Closed ALC Cases .....	89
Open ALC Cases .....	89
Hospital Processes and Capacity .....	90
<b>Long-Term Care</b>	<b>92</b>

## Highlights

Comprehensive information about population demographics, health status, health outcomes, chronic conditions, human resources, primary care, health service utilization, and long-term care in the Central East LHIN can be found under the content headings of in the remainder of this document, beginning with the socio-demographic profile. This Highlights introduction is intended to provide a guide to areas in which either the Central East LHIN or one of its sub-regions is significantly different from the province as a whole. Sub-region comparisons within this section are always to the other 75<sup>1</sup> sub-regions across the province, and LHIN comparisons are always to the other 13 LHINs.

### Central East LHIN

#### Population Characteristics

- The Central East LHIN is estimated to have had the 2<sup>nd</sup> largest population across the province in 2016, and is projected to have the **highest** population growth by 2026.
- The Central East LHIN had the seventh lowest percentage of residents with less than high school.
- The Central East LHIN had the sixth highest percentage of residents with only high school completion.
- The Central East LHIN had the seventh lowest percentage of residents with post-secondary education below bachelor's degree.
- Among vaginal deliveries, the Central East LHIN had the 2<sup>nd</sup> highest rates of assisted and of vacuum extraction.
- Central East had the 2<sup>nd</sup> highest number of active home care referrals in the province.
- The Central East LHIN had a **significantly higher** percentage of people who died in hospital than the provincial value.
- Residents of the Central East LHIN had the 2<sup>nd</sup> highest rehabilitation admission rate per 100,000 population in FY16/17.

#### Strengths

- In 2016, the stillbirth rate in Central East was the 2<sup>nd</sup> lowest rate in the province.
- In 2017/18, 90<sup>th</sup> percentile wait time for adult CT scans, pediatric CT scans, and pediatric MRIs were **shortest** in the **Central East** LHIN.

#### Challenges/Opportunities

- The Central East LHIN had the highest percentage of employed population with a commuting duration of 60 minutes or more.
- The low birth weight rate per 100 live births in Central East was the 2<sup>nd</sup> highest in the province.
- The Central East LHIN had the 2<sup>nd</sup> highest prevalence rate for diabetes.
- Residents of the Central East LHIN had a **significantly higher** rate of unplanned ED visits in the last 30 days of life than the province as a whole.
- Central East had a **significantly higher** percentage of patients with two or more acute inpatient admissions in the last 30 days of life than the province as a whole.
- In 2017/18, hospitals in the Central East LHIN took the **longest** time to determine whether to admit patients from the emergency department to an inpatient bed.
- Central East LHIN had the 2<sup>nd</sup> highest inpatient rehabilitation admission rate.

---

<sup>1</sup> Or however many sub-regions have reported data across the province.

- The ALC wait time for closed cases in the Central East LHIN was the **longest** across LHINs at the end of FY 17/18.



## Residents of Central East LHIN Sub-Regions

### PETERBOROUGH CITY AND COUNTY SUB-REGION HIGHLIGHTS

#### Population Characteristics

- 7<sup>th</sup> highest percentage of residents who reported English as their mother tongue.
- 3<sup>rd</sup> highest percentage of patients who received palliative care who died in hospital in 2016/17.
- Among the highest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- 7<sup>th</sup> highest inpatient rehabilitation admission rate in the province.

#### Strengths

- 5<sup>th</sup> lowest full-term low birth rate in the province.
- Among the 8 sub-regions with the lowest hospitalization rates for stroke.
- Among the 8 sub-regions with the lowest mean cost per complex patient.

#### Challenges/Opportunities

- Very good or excellent self-perceived mental health was significantly less prevalent compared to Ontario.
- **Significantly higher** smoking rate than Ontario.
- **Peterborough City and County** had a **significantly higher** prevalence rate than Ontario for arthritis, asthma, and heart disease.
- Among the 8 sub-regions with the highest hospitalization rates for asthma and lower respiratory disease.
- Among the 8 sub-regions with the highest percentage of complex patients (4+ conditions).
- Among the highest 8 ranking Ontario sub-regions for total length of stay.
- In 2017/18, residents of **Peterborough City and County** had the 2<sup>nd</sup> longest wait before being discharged from hospital with an ALC designation (closed cases).

## HALIBURTON COUNTY AND CITY OF KAWARTHA LAKES SUB-REGION HIGHLIGHTS

### Population Characteristics

- **Highest** percentage of population aged 65+ and **highest** percentage of population aged 75+.of all 76 Ontario sub-regions.
- 2<sup>nd</sup> highest all-cause mortality rate per 100,000 population.
- 7<sup>th</sup> highest dependency ratio.
- 3<sup>rd</sup> highest percentage of residents who reported English as their mother tongue.
- 2<sup>nd</sup> lowest percentage of residents who were recent immigrants.
- 2<sup>nd</sup> highest percentage of residents with only high school completion.
- 3<sup>rd</sup> lowest percentage of residents participating in the labour force.
- 2<sup>nd</sup> highest percentage of patients receiving palliative care who died in hospital in 2016/17.
- 6<sup>th</sup> highest rehabilitation admission rate in FY16/17.
- 4<sup>th</sup> shortest rehabilitation length of stay.

### Strengths

- 8<sup>th</sup> lowest pre-term birth rate in the province.
- 4<sup>th</sup> lowest mean length of stay for inpatient rehabilitation.

### Challenges/Opportunities

- 8<sup>th</sup> highest full-term low birth weight rate in the province.
- Haliburton County and City Of Kawartha Lakes had the **highest** prevalence rate for arthritis in the province, **significantly higher** than Ontario.
- **Significantly higher** prevalence rates for hypertension and heart disease than Ontario.
- Among the 8 sub-regions with the highest percentage of complex patients (4+ conditions).
- Among the 8 sub-regions with the highest percentage of high cost healthcare users.
- 6<sup>th</sup> highest inpatient rehabilitation admission rate in the province.

## NORTHUMBERLAND COUNTY SUB-REGION HIGHLIGHTS

### Population Characteristics

- 3<sup>rd</sup> highest percentage of population aged 65+.
- 2<sup>nd</sup> highest percentage of population aged 75+.
- 6<sup>th</sup> highest dependency ratio.
- 5<sup>th</sup> highest percentage of residents who reported English as their mother tongue.
- 4<sup>th</sup> lowest percentage of residents who were recent immigrants.
- 6<sup>th</sup> highest percentage of patients receiving palliative care who died in hospital in 2016/17 (tied with [District of Rainy River](#)).
- **Highest** rehabilitation admission rate per 100,000 population in FY16/17.
- **Lowest** CCC active case rate.

### Strengths

- [Northumberland County](#) had the **highest** proportion of people with a regular medical doctor among all Ontario sub-regions, **significantly higher** than Ontario.
- Residents of [Northumberland County](#) had the 8<sup>th</sup> lowest mental health active case rate per 100,000 population age 15+.

### Challenges/Opportunities

- The overweight or obesity rate was **significantly higher** than Ontario.
- 8<sup>th</sup> highest “large for gestational age” rate (tied with [City of Thunder Bay](#)) in the province.
- **Significantly higher** prevalence rate for arthritis than Ontario.
- **Significantly higher** prevalence rate for asthma than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- [Northumberland County](#) had the **highest** prevalence rate for heart disease in the province, **significantly higher** than Ontario.

## DURHAM NORTH EAST SUB-REGION HIGHLIGHTS

### Population Characteristics

- Durham North East was not significantly different from the rest of Ontario in any population characteristics.

### Strengths

- 8<sup>th</sup> lowest full-term low birth rate in the province.
- Compared to Ontario, the proportion of people with a regular medical doctor was **significantly higher** in Durham North East.

### Challenges/Opportunities

- The overweight or obesity rate was **significantly higher** than Ontario.
- The proportion of residents consuming less than 5 servings per day was **significantly higher** than Ontario.
- The prevalence rate for arthritis and asthma in Durham North East was **significantly higher** than Ontario.
- 8<sup>th</sup> highest percentage of residents who went to a walk in clinic for something that could have been treated by provider if they were available.

## DURHAM WEST SUB-REGION HIGHLIGHTS

### Population Characteristics

- 7<sup>th</sup> lowest percentage of population aged 65+.
- 8<sup>th</sup> lowest percentage of population aged 75+.
- 8<sup>th</sup> lowest fertility rate among teenagers in the province.
- Among the lowest rates of acute care days per 1,000 residents in 2016/17.

### Strengths

- 6<sup>th</sup> lowest percentage of dwellings in need of major repairs.
- 3<sup>rd</sup> lowest stillbirth rate in the province.
- Very good or excellent health was significantly more prevalent compared to Ontario.
- Compared to Ontario, very good or excellent self-perceived mental health was significantly more prevalent in **Durham West**.
- **Significantly lower** smoking rates than Ontario.
- **Significantly lower** prevalence rate for heart disease than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- Among the 8 sub-regions with the lowest percentage of high cost users.
- Among the 8 lowest ranking Ontario sub-regions for the rate of acute days per 1,000 residents.

### Challenges/Opportunities

- Of all 76 Ontario sub-regions, **Durham West** had the **highest** percentage of workforce participants with commuting duration of 60 minutes and over.
- **Significantly higher** prevalence rate for asthma than Ontario.
- In 2017/18, residents of **Durham West** had the 6<sup>th</sup> longest wait before being discharged from hospital with an ALC designation (closed cases).

## SCARBOROUGH NORTH SUB-REGION HIGHLIGHTS

### Population Characteristics

- 7<sup>th</sup> highest population density.
- **Lowest** percentage of residents who report English as their mother tongue in all Ontario sub-regions.
- 4<sup>th</sup> lowest percentage of residents who report French as their mother tongue.
- **Highest** percentage of residents who report no knowledge of English or French.
- **Highest** percentage of residents who were immigrants.
- 4<sup>th</sup> highest percentage of residents who were recent immigrants. The country of origin for the largest proportion of recent immigrants was China.
- **Highest** percentage of residents who were first generation Canadian.
- **Highest** percentage of population who were visible minorities.
- 2<sup>nd</sup> lowest percentage of residents reporting Aboriginal identity.
- 6<sup>th</sup> lowest percentage of residents with post-secondary education below bachelor's degree.
- 6<sup>th</sup> highest percentage of residents with less than high school.
- 4<sup>th</sup> lowest percentage of residents participating in the labour force.
- Among the eight lowest sub-regions in total home service visit rates in 2017/18.
- Among the eight highest sub-regions in nursing visit rates in 2017/18.
- 4<sup>th</sup> highest percentage of residents who died in hospital.
- Among the lowest acute separation rates from acute hospital beds in 2016/17.
- Residents of **Scarborough North** had the 5<sup>th</sup> lowest mental health active case rate.

### Strengths

- **Lowest** large for gestational age rate in the province.
- Compared to Ontario, there was a **significantly lower** smoking rate in **Scarborough North**. *Note: The reported rate had high coefficient of variation, the rate must be used with caution.*
- The overweight or obesity rate was **significantly lower** than Ontario.
- Scarborough North residents had the 2<sup>nd</sup> lowest ED visit rate for MH/SA conditions.
- Among the 8 sub-regions with the lowest hospitalization rates for cardiovascular disease, chronic obstructive pulmonary disease, diabetes, hypertension, ischemic heart disease, lower respiratory disease, and respiratory disease.

### Challenges/Opportunities

- 7<sup>th</sup> highest percentage of households with an insufficient number of bedrooms to accommodate household size.
- 5<sup>th</sup> highest percentage population living below the low-income measure.
- 5<sup>th</sup> highest percentage of children under 6 living in low-income households.
- 3<sup>rd</sup> highest percentage of children under 18 living in low-income households.
- 3<sup>rd</sup> highest percentage of seniors (65+) living in low-income households.
- 4<sup>th</sup> highest percentage of residents spending 30% or more of household income on rent or payments.
- 5<sup>th</sup> highest percentage of residents age 15+ who were unemployed.
- 5<sup>th</sup> highest percentage of participants in the labour force with a commuting duration of 60 minutes and over.
- 8<sup>th</sup> highest “small for gestational age” rate in the province.

- 6<sup>th</sup> highest full-term low birth weight rate in the province.
- Rates of physical inactivity were **significantly higher** compared to Ontario.
- Compared to Ontario, the proportion of residents consuming fewer than 5 servings per day was **significantly higher** in **Scarborough North**.
- 3<sup>rd</sup> highest percent of residents with one or more unplanned ED visits in the last 30 days of life (tied with **North York West**).
- At the end of 2017/18, residents of **Scarborough North** had had the 8<sup>th</sup> longest wait to date for discharge from an ALC designation in hospital (open cases).

## SCARBOROUGH SOUTH SUB-REGION HIGHLIGHTS

### Population Characteristics

- 5<sup>th</sup> highest population.
- 8<sup>th</sup> highest percentage of residents who were first generation Canadian.
- 4<sup>th</sup> highest percentage of residents who were visible minorities.
- 2<sup>nd</sup> highest percentage of participants in the labour force with a commuting duration of 60 minutes and over.
- 3<sup>rd</sup> highest “small for gestational age” rate in the province.
- 5<sup>th</sup> highest percentage of residents who died in hospital.

### Strengths

- Compared to Ontario, there was a **significantly lower** smoking rate in **Scarborough South**.
- **Significantly lower** prevalence rate for asthma than Ontario. *Note: The reported rate had high sampling variability, the rate must be used with caution*

### Challenges/Opportunities

- 5<sup>th</sup> highest percentage of households with an insufficient number of bedrooms to accommodate household size.
- 8<sup>th</sup> highest percentage population living below the low-income measure.
- 7<sup>th</sup> highest percentage of children under 6 living in low-income households.
- Among the 8 sub-regions with the highest percentage of children under 18 living in low-income households.
- 6<sup>th</sup> highest percentage of residents age 15+ who were unemployed.
- **Highest** overall and full-term low birth weight rates in the province.
- Rates of physical inactivity were **significantly higher** in **Scarborough South** compared to Ontario.
- The prevalence rate for the population with arthritis was **significantly higher** than Ontario.
- Residents of the **Scarborough South** sub-region indicated one of the lowest rates of very good or excellent self-perceived health among Ontario sub-regions.
- 7<sup>th</sup> highest percent of residents with one or more unplanned ED visits in the last 30 days of life.



## Population Characteristics

### Population Estimates<sup>2</sup>

- As of 2016, the population of the Central East LHIN is estimated to be 1,621,347, a 4.9% increase from 2011.
  - The populations 65 and over and 75 and over represent 16% and 7% of the total population respectively.
- The population of the Central East LHIN is projected to increase by 6.0% by 2021 and by 11.4% by 2026.

### Population Estimates from 2016 Census and Ministry of Finance

	Ontario	Central East	Comments†
2011 Census, total population	12,851,821	1,498,653	
2016 Census, total population	13,448,494	1,550,531	
Population growth between 2011 and 2016 (based on Census)	4.6%	3.5%	
Estimated population, 2011	13,263,544	1,544,973	
<b>Estimated population, 2016</b>	<b>13,982,984</b>	<b>1,621,347</b>	<i>2<sup>nd</sup> highest</i>
% population age 65+	16.38%	16.47%	
% population age 75+	7.17%	7.31%	
<b>% population change estimated 2011-2016</b>	<b>5.4%</b>	<b>4.9%</b>	
Projected population, 2021	14,980,422	1,719,267	
Projected population, 2026	15,822,463	1,806,712	
% changes (based on changes from the 2016 estimates)			
% population change forecasted 2016-2021	7.1%	6.0%	<i>Highest</i>
% population change forecasted 2016-2026	13.2%	11.4%	<i>Highest</i>

Sub-Region Name	Total population	Age 65plus	% 65+	Age 75plus	% 75+
Peterborough City and County	141,357	31,529	22.30%	14,103	9.98%
Haliburton County and City of Kawartha Lakes	94,592	24,850	26.27%	10,635	11.24%
Northumberland County	75,411	18,825	24.96%	8,296	11.00%
Durham North East	319,940	52,591	16.44%	22,125	6.92%
Durham West	351,899	42,012	11.94%	16,581	4.71%
Scarborough North	190,342	33,965	17.84%	17,127	9.00%
Scarborough South	447,806	63,247	14.12%	29,579	6.61%

<sup>2</sup> Please see note in Ontario chapter on Census versus Ministry of Finance estimates.

## 2016 Census Profile

### Census Demographics

- 16.3% of the population was in the age group 0-14 and 66.3% was in the age group 15-64.
- The dependency ratio in Central East at 66.4 was higher than the province (64.5).
- The largest proportion of Central East's population (71.8%) lived in large urban communities.
- 13.7% of Central East's population lived in medium/small population centre communities.
- 9.0% of Central East's population lived in rural or small communities adjacent to urban areas communities.
- The smallest proportion of Central East's population (5.5%) lived in rural and small town communities.
- Central East's land mass measures 15,395 square kilometres making it the 6<sup>th</sup> largest LHIN in the province.
- Central East's population density was 100.7 persons per square kilometre making it the 7<sup>th</sup> most densely populated LHIN in the province.

### Households

- In 2016, 254,350 households contained one or more family members aged 65 years and over. 20.6% of those individuals were living alone.
  - By sub-region, **Peterborough City and County** had the highest rate of seniors living alone (24.1%) and **Scarborough North** had the lowest (16.5%).
  - **Peterborough City and County** had the highest rate of one person households (27.1%) and **Durham West** had the lowest (16.2%)
  - **Scarborough North** had the highest rate of 5 or more person households (15.8%) and **Haliburton County and City Of Kawartha Lakes** had the lowest (5.9%).
- In 2016, 289,720 families with children were living within the boundaries of the Central East LHIN. 29.4% of those families were lone parent.
  - By sub-region, **Scarborough South** had the highest rate of lone-parent families (32.8%) and **Durham West** had the lowest (24.7%)
- The total number of owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio was 552,850. 28.5% of those households spent 30% or more of their income on rent or payments.
  - By sub-region, **Scarborough North** had the highest rate (37.6%) and **Northumberland County** having the lowest (23.3%).
- The total number of private households was 559,230. 75.0% of those were owner occupied, 25.0% were rented, and less than 0.1% were band housing.
  - By sub-region and owner occupation rate, **Durham West** had the highest rate (85.4%) with **Scarborough South** having the lowest (63.3%).
- 6.1% of the private households in the Central East were in need of major repair.
  - By sub-region and housing in need of repair rate, **Northumberland County** and **Scarborough South** had the highest rate (7.5%) and **Durham West** had the lowest (3.4%).
- 7.5% of the private households in the Central East LHIN had an insufficient number of bedrooms to accommodate the household makeup.
  - **Scarborough South** had the highest rate of unsuitable housing (14.7%) and **Haliburton County and City Of Kawartha Lakes** had the lowest (2.3%).

## Language

- In 2016, 71.8% of the population reported English and 1.6% identified French as their mother tongue in Central East LHIN.
  - By sub-region, Haliburton County and City of Kawartha Lakes had the highest proportion (94.2%) and **Scarborough North** had the lowest proportion of residents who identified English as their mother tongue (31.1%).
  - By sub-region, **Durham North East** had the highest proportion (2.0%) and **Scarborough North** had the lowest proportion of residents who identified French as their mother tongue (0.9%).
- In 2016, 1.8% of Central East LHIN residents were Francophone under the 2009 new Inclusive Definition of Francophone.
  - By sub-region **Durham North East** and **Durham West** had the highest proportion of Francophone residents (2.1%). **Haliburton County and City Of Kawartha Lakes** had the lowest (1.2%).
- 3.4% of the LHIN's population reported no knowledge of either official language.
  - By sub-region **Scarborough North** reported the highest proportion of residents with no knowledge of English or French (17.6%). **Peterborough City and County** sub-region, **Haliburton County and City Of Kawartha Lakes** sub-region and **Northumberland County** sub-region all had the lowest proportion (0.2%).
- 77.1% of the LHIN's population reported English as the most common language spoken at home, followed by English and a non-official language (6.0%), Cantonese (3.0%), Mandarin (2.5%) and Tamil (2.4%).

## Income

- In the Central East LHIN, 15.0% of the population lived on low income, based on the after-tax low income measure (LIM-AT).
  - The proportion of residents living below the low income measure varied by sub-region, from 8.5% in the **Durham West** sub-region to 22.6% in the **Scarborough North** sub-region.
  - The proportion of households in the lowest income quintile ranged across sub-regions in the Central East LHIN, from 12.1% in the **Durham West** sub-region to 32.7% in the **Scarborough North** sub-region.
- In the Central East LHIN, 21.7% of children under the age of 6 lived in low income households.
  - By sub-region, children living in low income households ranged from 11.9% in the **Durham West** sub-region to 32.4% in the **Scarborough West** sub-region.
- The proportion of households in the highest income quintile varied across sub-regions in the Central East LHIN, from 11.8% in the **Scarborough North** sub-region to 28.4% in the **Durham West** sub-region.

## Immigration

- In 2016, immigrants accounted for 33.7% of the Central East LHIN population. From 1980 to 2016, 42.7% of immigrants were admitted as economic immigrants, 37.8% were sponsored by family and 17.7% were admitted as refugees. 3.4% of Central East LHIN residents were **recent immigrants**, having arrived in Canada between 2011 and 2016. Of the recent immigrants, the highest proportion came from China (19.6%), followed by India (15.2%) and the Philippines (15.0%).
  - Among the seven Central East LHIN sub-regions, the percentage of immigrants ranged from 8.1% in **Haliburton County and City Of Kawartha Lakes** to 66.9% in **Scarborough North**.
  - The percentage of recent immigrants ranged from 0.2% in **Haliburton County and City Of Kawartha Lakes** to 8.3% in **Scarborough North**.

- In 2016, 35.4% of the Central East LHIN population were **first generation Canadians**.
  - Among the seven Central East LHIN sub-regions, the percentage of first generation Canadians ranged from 8.4% in [Haliburton County and City Of Kawartha Lakes](#) to 71.1% in [Scarborough North](#).

#### **Visible Minorities**

- In 2016, 40.8% of the Central East LHIN population was a visible minority.
  - Among the seven Central East LHIN sub-regions, the percentage of visible minorities ranged from 2.0% in [Haliburton County and City Of Kawartha Lakes](#) to 85.3% in [Scarborough North](#).

#### **Indigenous (Aboriginal) Identity**

- 1.8% of the Central East LHIN's residents identified as Aboriginal, with 1.1% identifying as First Nations and 0.6% as Métis
  - Among the seven Central East LHIN sub-regions, the percentage of residents reporting Aboriginal identity ranged from 0.2% in [Scarborough North](#) to 4.6% in [Peterborough City and County](#).

#### **Education**

- In 2016, 25.7% of Central East LHIN residents of working age had completed post-secondary education, ranking 7<sup>th</sup> across the province.
  - Across Central East sub-regions, the percentage of the population with less than high school ranged from 7.1% in [Durham West](#) to 18.1% in [Scarborough North](#).
  - The percentage of the population with high school completion ranged from 25.0% in [Durham West](#) to 31.6% in [Haliburton County and City Of Kawartha Lakes](#).
  - The percentage of the population with post-secondary education below bachelor's degree ranged from 24.2% in [Scarborough North](#) to 42.4% in [Haliburton County and City Of Kawartha Lakes](#).
  - The percentage of the population with bachelor's degree completion and beyond ranged from 12.6% in [Haliburton County and City Of Kawartha Lakes](#) to 31.7% in [Scarborough North](#).

#### **Labour Force Participation**

- Central East LHIN had the 3<sup>rd</sup> highest unemployment rate in the province at 8.6% and a workforce participation rate of 62% in those aged 15+ in 2016.
- Of those employed in 2016, 54% of Central East LHIN residents had a commute time from their residence to their place of work of 30 minutes or more, while 33.4% (the 2<sup>nd</sup> highest of all of the LHINs) had a commute time of 45 minutes or more.

2016 Census Profile	Ontario	Central East	Comments†
<b>Census Population 2016</b>			
Dependency ratio (number of "dependents" for every 100 "workers")	64.5	66.4	
<b>Urban-Rural Gradient</b>			
% large urban	68.1%	71.8%	
% medium/small population centre	14.7%	13.7%	
% rural or small communities adjacent to urban areas	8.4%	9.0%	
% rural and small town	8.8%	5.5%	
Land Area (sq km)	908,699	15,395	
Population Density (persons per square kilometre)	14.8	100.7	
<b>Population by Household and Families</b>			
% of people age 65+ living alone	23.5%	20.6%	
% of dwellings in need of major repairs	6.1%	6.1%	
% of households with an insufficient # of bedrooms	6.0%	7.5%	
<b>Language</b>			
% who report English as their mother tongue	69.5%	71.8%	
% who report French as their mother tongue	4.3%	1.6%	
% with no knowledge of English or French	2.5%	3.4%	
% Francophone (IDF)	4.7%	1.8%	
<b>Population (in Private Households) Living in Low Income</b>			
% Population living below low-income measure (LIM-AT)	14.4%	15.0%	
% Children living in low income households/LIM (age<6)	19.8%	21.7%	
% Children living in low income households/LIM (age<18)	18.4%	20.3%	
% Seniors living in low income households/LIM (age 65+)	12.0%	12.3%	
<b>Immigration</b>			
% of population who are immigrants	29.1%	33.7%	
% of population who arrived within 5 years	3.6%	3.4%	
% first generation Canadian (children of immigrants)	31.1%	35.4%	
<b>Visible Minorities</b>			
% of population who are visible minorities	29.3%	40.8%	
<b>Indigenous Identity</b>			
% of population of Aboriginal identity	2.8%	1.8%	
% population First Nations identity	1.8%	1.1%	
% population Metis identity	0.9%	0.6%	
% population Inuk identity	0.0%	0.0%	
% Multiple Aboriginal responses	0.0%	0.0%	
% Aboriginal responses not included elsewhere	0.1%	0.0%	
<b>Educational Attainment</b>			
% Population age 25-64 with less than high school	10.4%	11.5%	
% Population age 25-64 with high school completion	24.5%	27.2%	
% Population age 25-64 with post-secondary education below bachelor's degree	33.2%	35.6%	
% Population age 25-64 with bachelor's degree completion and beyond	31.9%	25.7%	
<b>Labour Force Activity</b>			
% In the labour force (Participation rate)	64.7%	62.3%	
% Unemployed	7.4%	8.6%	
% 60 minutes and over commuting duration	12.4%	20.9%	Highest

†Highest/lowest ranking in the province, compared to other LHINs.

## Sub-Region Profiles, 2016 Census

Sub-Region	Peterborough City and County	Haliburton County and City of Kawartha Lakes	Northumberland County	Durham North East	Durham West	Scarborough North	Scarborough South
<b>Census Population 2016</b>							
Dependency ratio (number of "dependents" for every 100 "workers")	74.0	79.0	79.1	65.2	62.9	66.0	63.5
<b>Urban-Rural Gradient</b>							
% large urban	0.0%	0.0%	0.0%	60.0%	97.1%	100.0%	100.0%
% medium/small population centre	64.7%	29.9%	42.9%	20.1%	0.4%	0.0%	0.0%
% rural or small communities adjacent to urban areas	25.2%	50.8%	8.3%	14.0%	2.6%	0.0%	0.0%
% rural and small town	10.0%	19.3%	48.8%	5.9%	0.0%	0.0%	0.0%
Land Area (sq km)	3,848	7,160	1,682	2,079	445	42	138
Population Density (persons per square kilometre)	35.9	13.1	43.8	147.2	763.3	4,203.3	3,065.3
<b>Population by Household and Families</b>							
% of people age 65+ living alone	24.1%	21.8%	22.8%	22.9%	18.1%	16.5%	20.1%
% Of dwellings in need of major repairs	6.7%	7.0%	7.5%	6.2%	3.4%	5.4%	7.5%
% of households with an insufficient # of bedrooms	2.5%	2.3%	2.6%	3.5%	4.6%	13.7%	14.7%
<b>Language</b>							
% who report English as their mother tongue	93.6%	94.2%	94.0%	89.0%	77.8%	31.1%	55.7%
% who report French as their mother tongue	1.3%	1.3%	1.5%	2.0%	1.9%	0.9%	1.4%
% with no knowledge of English or French	0.2%	0.2%	0.2%	0.4%	1.1%	17.6%	3.6%
% Francophone	1.4%	1.2%	1.5%	2.1%	2.1%	1.4%	1.8%
<b>Population (in Private Households) Living in Low Income</b>							
% Population living below low-income measure (LIM-AT)	15.2%	13.9%	11.7%	11.0%	8.5%	22.6%	20.6%
% Children living in low income households/LIM (age<6)	21.5%	18.0%	16.2%	15.8%	11.9%	32.4%	32.0%
% Children living in low income households/LIM (age<18)	19.2%	17.4%	15.8%	14.9%	11.9%	30.7%	29.8%
% seniors living in low income households/LIM (age 65+)	10.9%	11.2%	9.2%	8.7%	7.7%	21.1%	15.2%
<b>Population by Income Quintiles</b>							
% Economic families in Income quintile 1 - lowest income	21.8%	19.8%	17.1%	15.6%	12.1%	32.7%	27.5%
% Economic families in Income quintile 2	20.8%	22.0%	20.5%	18.0%	15.4%	23.1%	22.6%
% Economic families in Income quintile 3	20.6%	21.8%	21.8%	21.1%	19.3%	17.2%	19.4%
% Economic families in Income quintile 4	19.9%	20.6%	21.7%	23.6%	24.8%	15.2%	17.4%
% Economic families in Income quintile 5 - highest income	16.9%	15.9%	18.9%	21.6%	28.4%	11.8%	13.2%

Sub-Region	Peterborough City and County	Haliburton County and City of Kawartha Lakes	Northumberland County	Durham North East	Durham West	Scarborough North	Scarborough South
<b>Immigration</b>							
% of population who are immigrants	8.4%	8.1%	10.6%	14.5%	31.8%	66.9%	53.2%
% of population who arrived within 5 years	0.6%	0.2%	0.3%	0.9%	2.3%	8.3%	6.4%
% first generation Canadian (children of immigrants)	9.4%	8.4%	11.0%	15.2%	32.7%	71.1%	55.8%
<b>Visible Minorities</b>							
% of population who are visible minorities	4.4%	2.0%	3.5%	11.5%	41.2%	85.3%	69.9%
<b>Indigenous Identity</b>							
% of population of Aboriginal identity	4.6%	2.8%	2.8%	2.7%	1.3%	0.2%	1.0%
% population First Nations identity	3.0%	1.4%	1.9%	1.6%	0.7%	0.2%	0.6%
% population Metis identity	1.4%	1.1%	0.8%	1.0%	0.5%	0.1%	0.3%
% population Inuk identity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Multiple Aboriginal responses	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%
% Aboriginal responses not included elsewhere	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%
<b>Educational attainment</b>							
% Population age 25-64 with less than high school	10.2%	13.3%	11.0%	10.9%	7.1%	18.1%	13.0%
% Population age 25-64 with high school completion	26.7%	31.6%	30.7%	29.4%	25.0%	26.2%	26.6%
% Population age 25-64 with post-secondary education below bachelor's degree	40.9%	42.4%	41.8%	41.5%	37.1%	24.2%	30.7%
% Population age 25-64 with bachelor's degree completion and beyond	22.2%	12.6%	16.4%	18.2%	30.8%	31.7%	29.7%
<b>Labour Force Activity</b>							
% In the labour force (Participation rate)	59.2%	55.4%	57.7%	65.1%	69.4%	55.6%	61.1%
% Unemployed	8.0%	8.1%	7.3%	8.3%	7.9%	9.9%	9.7%
% 60 minutes and over commuting duration	8.2%	16.0%	12.3%	19.4%	25.0%	21.8%	24.6%

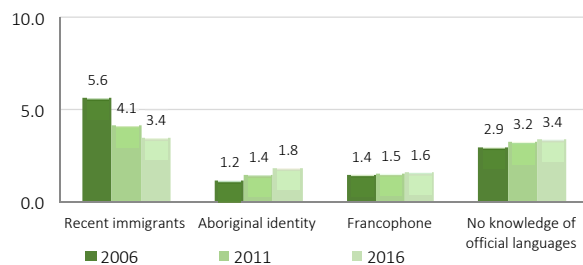
## Central East

### 2016 Census Profile Summary

#### Number of private dwellings

2006	558,978
2011	586,631
2016	607,991

#### Immigration, identity and language (% of population)

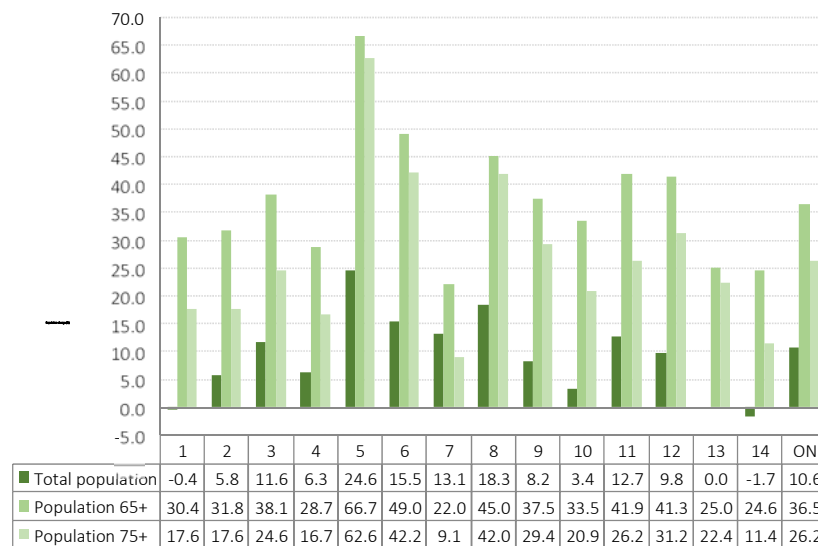


#### Population change (2006-2016)

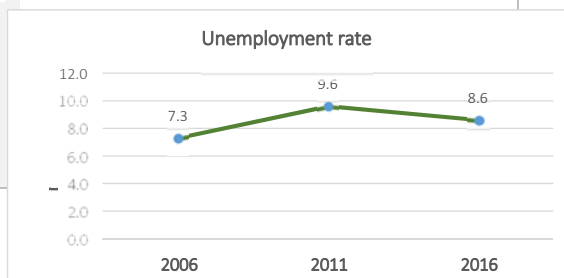
The growth of the senior (65+) population across LHINs ranged from 67% in Central West to 22% in Toronto Central.

The growth of the population age 75+ in Central East between 2006 and 2016 was 29.4%, compared to 26.2% for the province as a whole. Total LHIN population growth was 8.2% for the same period.

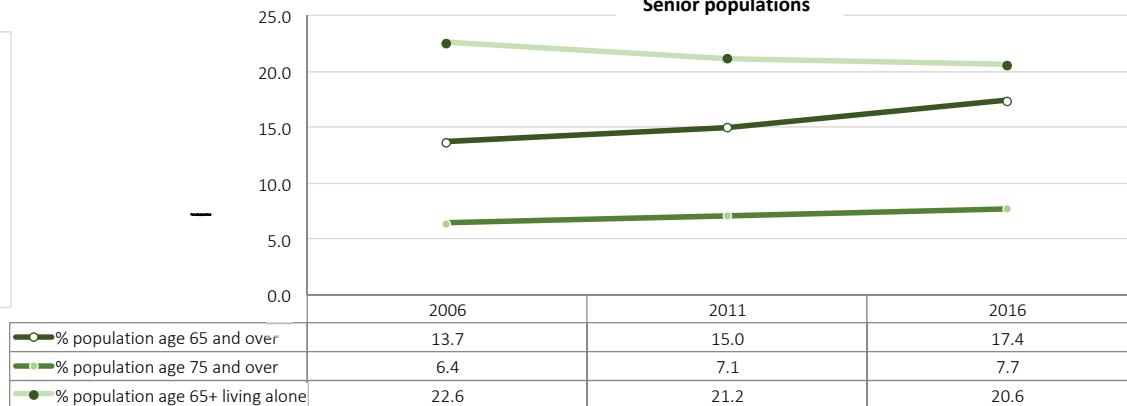
#### Population change, 2006 to 2016, by LHIN



#### Change in unemployment rate, 2006 to 2016 = 17.9%



#### Senior populations





## Births and Mortality

### Births and Maternal Outcomes

- In FY 2016/17, there were 15,460 pregnancies and 15,711 births to Central East women. 98% of births took place in a hospital; the remaining 2% were in the home, birth centre or other (including nursing stations, births outside of Ontario and other Ontario locations).
- In 2016, the crude birth rate (per 1,000 population) in Central East was 9.5.
  - By sub-region, **Northumberland County** and **Haliburton County and City Of Kawartha Lakes** had the 3<sup>rd</sup> and 4<sup>th</sup> lowest crude birth rates (per 1,000) population in the province (6.8 and 6.9, respectively).
- The fertility rate per 1,000 Central East females of reproductive age (15 to 49) was 39.8.
- For teenagers (15 to 19), the fertility rate per 1,000 Central East females was 5.1.
  - By sub-region, **Durham West** had the 8<sup>th</sup> lowest fertility rate among teenagers in the province (1.4).
- In FY2016, 1.7% of women who gave birth were under 20 years of age. 20.1% of women were 35 years or older.
- The overall mean age of mothers giving birth in this LHIN was 30.6.
- In 2016, the stillbirth rate per 1,000 live births in Central East was 6.8, the 2<sup>nd</sup> lowest rate in the province.
  - By sub-region, **Durham West** had the 3<sup>rd</sup> lowest stillbirth rate in the province (5.2).

### Multiple Births

- The multiple live birth rate per 100 live births in 2016 was 3.4.

### Pre-Term Births

- In 2016, the pre-term birth rate per 100 live births was 8.2.
  - By sub-region, **Haliburton County and City Of Kawartha Lakes** had the 8<sup>th</sup> lowest pre-term birth rate in the province (6.5).

### Size for Gestational Age and Birth Weight

- The low birth weight rate per 100 live births in Central East was 7.3, the 2<sup>nd</sup> highest rate in the province.
  - By sub-region, **Scarborough South** had the **highest** low birth weight rate in the province (9.6).
- In 2016, the small for gestational age rate per 100 live births was 10.4.
  - By sub-region, **Scarborough South** and **Scarborough North** had 3<sup>rd</sup> and 8<sup>th</sup> highest small for gestational age rate in the province (13.9 and 12.2, respectively).
- In 2016, the large for gestational age rate per 100 live births was 9.6.
  - By sub-region, **Northumberland County** had the 8<sup>th</sup> highest large for gestational age rate (tied with **City of Thunder Bay**) in the province (14.2). At 5.6, **Scarborough North** had the **lowest** rate in the province.

### Attendants, Assisted Delivery & Epidural Anaesthesia during Labour

- In Central East, 82.5% of hospital births were attended by an obstetrician.
- Among vaginal deliveries, the overall assisted delivery rate for Central East women was 14 and using vacuum extraction was 11.3. Both rates were the 2<sup>nd</sup> highest in the province. Assisted delivery rate using forceps was 2.1.
- The epidural rate for vaginal deliveries was 55.2. Epidural rate for all deliveries was 46.9.

### Caesarean Deliveries

- In FY 2016/17, the total Caesarean section rate per 100 deliveries was 30.0.

- The rate of primary Caesarean section rate (the mother's first Caesarean, regardless if she had given birth vaginally before) was 19.8 per 100 deliveries. Primary Caesarean section rate was lower in women under 35 years of age (19.2) compared to those 35 and over (22.3).
- The rate of repeat Caesarean sections in Central East was 84.2 per 100 deliveries.

#### **Breastfeeding**

- The rate of exclusive breastfeeding at discharge among term live births in this LHIN was 61.2%.

## Births and Maternal Outcomes, Ontario

	Central East	Ontario	Comments <sup>†</sup>
Total births in Ontario, LHIN of maternal residence	15,711	141,163	
Hospital	15,403	136,505	
Home	257	3,813	
Birth Centre	21	572	
Crude birth rate (per 1,000 population)	9.5	9.8	
Stillbirth rate (per 1,000 live births)	6.8	8.1	2 <sup>nd</sup> lowest
Multiple live birth rate (per 100 live births)	3.4	3.3	
Rate of preterm birth (<37 weeks) (%) <sup>*</sup>	8.7%	8.2%	3 <sup>rd</sup> highest
Preterm birth rate (per 100 live births) <sup>**</sup>	8.2	8.1	
Total pregnancies in Ontario, LHIN of maternal residence	15,460	138,781	
Fertility rate (per 1,000 females of reproductive age)			
Overall rate (15 to 49)	39.8	41.2	
Teen rate (15 to 19)	5.1	6.3	
Distribution of maternal age (%)			
<20	1.7%	1.9%	
≥ 35	20.1%	23.8%	
Mean age of mother at birth of first infant	28.9	29.3	
Overall mean age of mother at birth	30.6	30.7	
Rate of Caesarean delivery (%), LHIN of hospital	29.0%	28.4%	
Total Caesarean Section Rate	30.0	28.4	
Primary Caesarean Section Rate, LHIN of patient	19.8	19.0	
Primary C-Section Rate (< 35 years)	19.2	17.9	3 <sup>rd</sup> highest
Primary C-Section Rate (≥ 35 years)	22.3	22.9	
Repeat Caesarean Section Rate	84.2	82.7	
Epidural Rate for Vaginal Deliveries	55.2	60.3	3 <sup>rd</sup> lowest
Epidural Rate for All Deliveries	46.9	51.0	
Assisted Delivery Rate Among Vaginal Deliveries			
Overall	14.0	12.3	2 <sup>nd</sup> highest
Vacuum Extraction	11.3	9.1	2 <sup>nd</sup> highest
Forceps	2.1	2.8	
Healthcare provider who caught the baby for hospital births (%), LHIN of hospital			
Obstetrician	82.5%	78.8%	
Family doctor	8.1%	7.4%	
Midwife	5.7%	7.4%	
Other	3.7%	6.4%	
Low birth weight rate (per 100 live births)	7.3	6.8	2 <sup>nd</sup> highest
Fullterm low birth weight rate (per 100 live births)	2.3	2.0	3 <sup>rd</sup> highest
Births small for gestational age (%) <sup>*</sup>	10.8%	9.7%	
Small for gestational age (per 100 live births) <sup>**</sup>	10.4	9.6	
Births large for gestational age (%) <sup>*</sup>	9.4%	9.7%	
Large for gestational age (per 100 live births) <sup>**</sup>	9.6	9.8	
Rate of exclusive breastfeeding among term live hospital births (%), LHIN of maternal residence‡	61.2%	62.8%	

‡Results for exclusive breastfeeding for Central West, Toronto Central, Central, Central East, Unknown LHINs and Ontario should be interpreted with caution due to the large percentage of missing values.

†Ranking in the province compared to other LHINs.

\* As reported by BORN Ontario

\*\* As reported by Public Health Ontario

## Maternal smoking, alcohol and drug use during pregnancy among all women who live in Ontario and who had a live birth or stillbirth (LHIN of maternal residence), 2016/17 (BORN)

- In Central East, the rate of women who self-identified as non-smokers at first prenatal visit was 91.3%. At the time of labour, 93.3% were non-smokers.
  - The prevalence of smoking 1-10 cigarettes and 10+ cigarettes at the first prenatal visit was 4.8% and 3.4%, respectively.
- 1.7% of the women reported drinking alcohol. 1.8% reported using drugs during pregnancy.

	Central East	Ontario	Comments <sup>†</sup>
<b>Maternal smoking at first prenatal visit (%) LHIN of maternal residence<sup>‡</sup></b>			
% women who reported smoking (0) cigarettes/day	91.3%	90.7%	
% women who reported smoking (1 – 10) cigarettes/day	4.8%	5.5%	
% women who reported smoking (10+) cigarettes/day	3.4%	3.2%	
<b>Maternal smoking at time of labour (%)</b>			
% women who reported smoking (0) cigarettes/day	93.3%	92.5%	
% women who reported smoking (1 – 10) cigarettes/day	4.0%	4.6%	
% women who reported smoking (10+) cigarettes/day	2.4%	2.6%	
Alcohol consumption during pregnancy (%)	1.7%	2.6%	
Drug and substance exposure during pregnancy (%)	1.8%	2.3%	

<sup>†</sup>Ranking in the province compared to other LHINs.

## Life Expectancy

- Life expectancy at birth for both males and females in 2012-2014 was 83 years. By sex, life expectancy at birth for males in Central East LHIN was 81 years, and 85 years for females.
- Life expectancy at age 65 for both sexes from 2012-2014 was 22 years. By sex, life expectancy at age 65 for males in Central East LHIN was 20 years. Life expectancy at age 65 for females from 2012-2014 was 23 years.

	Central East LHIN	Ontario	Rank among LHINs <sup>†</sup>
<b>Life Expectancy</b>			
Life expectancy at birth- Both Sexes 2012-14	82.9	82.3	
Life expectancy at birth- Male 2012-14	80.7	80.2	
Life expectancy at birth- Female 2012-14	84.9	84.3	
Life expectancy at age 65- Both Sexes 2012-14	21.5	20.9	
Life expectancy at age 65- Male 2012-14	19.9	19.3	
Life expectancy at age 65- Female 2012-14	22.8	22.2	

<sup>†</sup>Ranking in the province compared to other LHINs (highest and lowest 2).

## Mortality and Potential Years of Life Lost

- In 2012, 10,408 Central East LHIN residents died.
- The all-cause mortality rate for LHIN residents was 667 per 100, 000 population in 2012.
  - By sub-region, **Haliburton County and City of Kawartha Lakes** had the 2<sup>nd</sup> highest all-cause mortality rate per 100,000 population (1,100).
- 36% of the deaths in Central East LHIN were premature (under age 75), the third lowest in the province.
- Ischaemic heart disease was the leading cause of death in Central East LHIN, followed by Dementia and Alzheimer's disease and cancer of lung and bronchus.
- 60,477 years of potential life were lost by LHIN residents in 2012.

- The LHIN's potential years of life lost (PYLL) rate for 2012 was 4,163 per 100,000 population aged less than 75. Since 2007, the PYLL rate decreased by 3.5% for Central East LHIN residents.
- The leading causes of PYLL in 2012 were Ischaemic heart disease and cancer of lung and bronchus.

### Mortality, Potential Years of Life Lost

	Central East LHIN	Ontario	Rank among LHINs†	Range across CE sub-regions (2010-2012)
<b>Mortality, 2012</b>				
Total deaths, 2012	10,408	90,525		731-2,485
% change in total deaths (2007-2012)	8.8%	4.1%		NA
All-cause mortality rate per 100,000	666.7	674.9		470.4-1,099.7
% change in all-cause mortality rate (2007-	5.2%	-0.7%		NA
% of deaths that were premature (age < 75)	36.0%	37.3%	3 <sup>rd</sup> lowest	30.7%-40.3%
<b>Top 10 leading causes of death, 2012 (rates per 100,000 population)<sup>3</sup></b>				
Ischaemic heart disease	91.7	98.0		61.2-169.2
Dementia & Alzheimer's disease	59.1	55.6		36.9-88.7
Cancer of lung & bronchus	52.0	50.3		36.9-92.7
Cerebrovascular diseases	34.7	36.6		21.9-63.9
Chronic lower respiratory diseases	25.8	28.4		17.7-53.6
Cancer of colon, rectum, anus	22.5	23.4		16.0-49.5
Diabetes	21.2	20.7		15.2-31.8
Cancer of lymph, blood & related	19.7	20.0		15.3-31.8
Falls	17.8	17.4		11.9-35.1
Diseases of urinary system	15.1	13.1		NA
<b>Potential years of life lost (PYLL), 2012</b>				
Total PYLL, 2012	60,477	551,256		3,601-15,680
% change in PYLL (2007-2012)	-0.1%	-0.6%		NA
PYLL rate per 100,000 population (age < 75)	4,163	4,405		3,199.0-6,172.5
% change in PYLL rate (2007-2012)	-3.5%	-5.0%		NA
<b>Top 10 leading causes of PYLL, 2012 (rates per 100,000 population, age &lt; 75)<sup>4</sup></b>				
Ischaemic heart disease	370.9	406.8		180.8-701.1
Cancer of lung & bronchus	346.9	322.6		229.7-600.9
Intentional self-harm	218.8	284.7		167.7-373.0
Perinatal conditions	232.3	253.3		123.6-314.0
Accidental poisoning	142.0	190.6		41.8-310.4
Cancer of lymph, blood & related	170.0	149.1		NA
Congenital malformations, deformations,	148.6	149.0		85.2-208.0
Cancer of breast	138.0	147.0		124.7-211.1
Cancer of colon, rectum, anus	138.6	141.3		105.3-274.9
Cirrhosis & other liver diseases	125.7	133.5		NA

†Ranking in the province, compared to other LHINs.

<sup>3</sup> Mean rate from 2010-2012

<sup>4</sup> Mean rate from 2010-2012

## General Health, Risk Factors, and Prevention

### General Health

- In 2015-16, 62% of Central East LHIN residents said they had very good or excellent health.
  - Very good or excellent health was significantly more prevalent in the **Durham West** sub-region compared to Ontario. Residents of the Scarborough South sub-region indicated one of the lowest rates of self-perceived health among Ontario sub-regions.
- 71% reported very good or excellent mental health. The proportion declined between 2005 and 2014, as it did in Ontario overall.
  - Compared to Ontario, very good or excellent self-perceived mental health was significantly more prevalent in **Durham West**, and significantly less prevalent in **Peterborough City and County**.
- 22% of Central East residents reported that most days were “quite a bit” or “extremely” stressful.

### Prevention

- 92% of Central East residents reported having a regular medical doctor.
  - Compared to Ontario, the **proportion** of people with a regular medical doctor was **significantly higher** in the **Northumberland County** and **Durham North East** sub-regions with **Northumberland County** sub-region having the highest rate among all Ontario sub-regions.
- 36% of residents of Central East LHIN indicated that they received a flu shot in the year preceding the survey.

### Risk Factors

- 16% of Central East residents reported daily or occasional smoking in 2015-16. Smoking rates have been declining over time.
  - Compared to Ontario, there were **significantly higher** smoking rates in the sub-region of **Peterborough City and County**, and **significantly lower** rates in the sub-regions of **Durham West**, **Scarborough North5**, and **Scarborough South**.
- 18 % of Central East residents reported heavy drinking. Heavy drinking is defined as having consumed 5 or more drinks for males and 4 or more drinks for women on at least one occasion at least once a month during the past year.
- The majority-61.1%- of adult Central East residents were either overweight or obese. The rates are rising in Central East and in Ontario overall. Between 2005 and 2014, the rate of overweight or obesity in Central East increased by 11%.
  - Overweight or obesity rates were **significantly higher** than Ontario in **Northumberland County** and **Durham North East** sub-regions. **Significantly lower** rates exist in **Scarborough North**.
- 45% of Central East residents were physically inactive—now defined as less than 150 minutes of moderate to vigorous activity per week.
  - In terms of sub-regions, rates of inactivity were **significantly higher** in **Scarborough North** and South, compared to Ontario.
- 74% of Central East residents did not consume enough fruits and vegetables (i.e., had fewer than 5 servings of fruits or vegetables daily).
  - Compared to Ontario, the proportion of residents consuming less than 5 servings per day is **significantly higher** in **Durham North East** and **Scarborough North** sub-regions.

---

<sup>5</sup> High coefficient of variation (29.1). Interpret with caution.

## General Health, Risk Factors, and Prevention; Central East

	Central East LHIN  2015-16	Ontario (2015-16)	Rank among LHINs <sup>†</sup> (2015-16)	Range across CE sub- regions (2011-14)*
<b>General Health</b>				
General health, % of the population age 12+ with...				
Very good or excellent self-perceived health	62%	61%		51-70%
Very good or excellent self-perceived mental health	71%	71%		68-77%
Days that are 'quite a bit' or 'extremely' stressful (age 15+)	22%	22%		
<b>Prevention</b>				
Use of Health Services and Preventive Care, % of the population age 12+ who...				
Have a regular medical doctor	92%	90%		90-98%
Have consulted with family doctor/general practitioner (past yr)	75%	74%		
Received flu shot in the past year	36%	33%		
<b>Risk Factors</b>				
Risk factors, % of the population age 12+ who...				
Are daily or occasional smokers	16%	17%		11-27% <sup>c</sup>
Are exposed to second-hand smoke in the home	6.2%	6.9%		
Are heavy drinkers	18%	18%		
Are overweight or obese (age 18+)	61%	61%		42-61%
Are overweight (age 18+)	35%	35%		31-40% <sup>c</sup>
Are obese (age 18+)	27%	26%		11-23% <sup>c</sup>
Are physically inactive	45%	42%		40-62%
Consume < 5 servings of fruits/vegetables daily	74%	72%		55-73%

\*2011-2014 sub-region rates are not directly comparable with LHIN and Ontario rates from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

<sup>†</sup>Top or bottom 3 ranking in the province, compared to other LHINs. Interpret with caution, rank based on point estimate, which may or may not be significantly different from Ontario. See significance flags for each measure below.

<sup>1</sup> LHIN is **significantly higher** than Ontario

<sup>-1</sup> LHIN is **significantly lower** than Ontario

<sup>c</sup> Estimates with high sampling variability (CV between 16.6 -33.3) must be used with caution.

## Chronic Conditions

### **Prevalence, mortality, hospital separations and hospital days of stay for selected chronic conditions**

- 39.5% of Central East residents (aged 12+) reported having a one or more chronic conditions with 17.8% having two or more chronic conditions.
- Chronic conditions with the highest or lowest prevalence rates compared to other LHINs were as follows: Diabetes - 2<sup>nd</sup> highest.
- The mean health care cost per user for Central East residents in 2015/16 was \$2,650 (\$2,750 for Ontario).
- 6.1% of the patients were complex (4+ conditions), 5.8% for Ontario.
- The mean healthcare cost of a complex patient was \$20,250 compared to \$22,050 for Ontario. The Central East LHIN was among the 3 LHINs with the lowest mean cost per complex patient.
- 4.8% of the patients were high cost user patients, 5.0% for Ontario.
- The mean healthcare cost per high cost user was \$37,200 compared to \$37,700 for Ontario.
- The hospitalization rate (per 100,000 population) for hypertension in Central East LHIN was 15.6 compared to 18 for Ontario. The Central East LHIN was among the 3 LHINs with the lowest rates.



### Chronic Conditions, Complex Patients

Condition	Central East	Ontario	Comment
<b>Self-reported prevalence (2015-16), rate per 100, age 12+</b>			
Arthritis	20.3	20.6	
Asthma	8.1	8.7	
Cancer	1.5 <sup>C</sup>	1.3	
Chronic Obstructive Pulmonary Disease (COPD) (age 35+)	4.5	4.0	
Diabetes	9.2	7.4	2 <sup>nd</sup> highest
High blood pressure	18.9	18.2	
Heart disease	4.2	4.6	
Suffer from effects of stroke	1.4 <sup>D</sup>	1.3	
Have a chronic condition	39.5	39.6	
Have multiple chronic conditions <sup>1</sup>	17.8	16.2	

C: 0.15<CV≤0.25 Marginal (Use with caution-high sampling variability)

D: 0.25<CV≤0.35 Marginal (Use with caution-high sampling variability)

1 - Of the selected conditions on this list

### Acute Inpatient Hospital Separations (2016 calendar year)

#### AGE STANDARDIZED rate per 100,000

Asthma	36.3	34.3
Cardiovascular disease	858.3	916.9
Cerebrovascular disease	128.0	133.2
COPD	172.5	171.8
Diabetes	103.8	100.2
Hypertension	15.6	18.0
Ischemic heart disease	308.4	314.8
Lower respiratory disease	211.1	208.9
Respiratory disease	599.6	599.7
Stroke	108.4	112.5

### Complex Patients and high cost users, 2015/16

Mean health care cost per user \$	\$ 2,650	\$ 2,750
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$ 20,250	\$ 22,050
# of patients that are complex	83,265	680,115
% of all patients (health care users) that are complex	6.1%	5.8%
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$ 37,200	\$ 37,700
# of patients that are high cost users	65,355	581,670
% of patients that are high cost users	4.8%	5.0%

## PETERBOROUGH CITY AND COUNTY SUB-REGION (901)

- The prevalence rate (per 100) for the population with arthritis (14+) was 25.6 (Ontario - 17.3). **Peterborough City and County** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with asthma was 10.3 (Ontario - 7.8). **Peterborough City and County** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with heart disease was 7.1 (Ontario - 5). **Peterborough City and County** sub-region's rate was **significantly higher** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for asthma was 77.8 (Ontario - 34.3). **Peterborough City and County** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 399.4 (Ontario - 208.9). **Peterborough City and County** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for stroke was 92.6 (Ontario - 112.5). **Peterborough City and County** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Peterborough City and County** sub-region was \$3,200 (Ontario - \$2,750).
- 8.1% of patients from **Peterborough City and County** sub-region were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the highest percentage of complex patients.
- The mean health care cost per complex patient in **Peterborough City and County** sub-region was \$19,050 (Ontario - \$22,050). It was among the 8 sub-regions with the lowest mean cost per complex patient.
- 6.3% of patients from **Peterborough City and County** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Peterborough City and County** sub-region was \$36,300 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Peterborough City and County	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	25.6	17.3	9
Asthma	10.3	7.8	11
Diabetes	8.1	6.8	21
High blood pressure	19.9	18.1	35
Heart disease	7.1	5.0	11

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
<i>AGE STANDARDIZED rate per 100,000</i>			
Asthma	77.8	34.3	3
Cardiovascular disease	871.5	916.9	54
Cerebrovascular disease	112.2	133.2	67
COPD	319.1	171.8	9
Diabetes	133.6	100.2	24
Hypertension	12.3	18.0	59
Ischemic heart disease	293.6	314.8	54
Lower respiratory disease	399.4	208.9	7
Respiratory disease	867.0	599.7	12
Stroke	92.6	112.5	71

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$3,200	\$ 2,750	23.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$19,050	\$ 22,050	69
# of patients that are complex	9,655	680,115	
% of all patients (health care users) that are complex	8.1%	5.8%	5
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$36,300	\$ 37,700	38
# of patients that are high cost users	7,470	581,670	
% of patients that are high cost users	6.3%	5.0%	24

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## HALIBURTON COUNTY AND CITY OF KAWARTHA LAKES SUB-REGION (902)

- The prevalence rate (per 100) for the population with arthritis (14+) was 28.7 (Ontario - 17.3). Haliburton County and City Of Kawartha Lakes sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with high blood pressure was 24 (Ontario - 18.1). Haliburton County and City Of Kawartha Lakes sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with heart disease was 8.1 (Ontario - 5). Haliburton County and City Of Kawartha Lakes sub-region's rate was **significantly higher** than Ontario.
- The mean health care cost per user in Haliburton County and City Of Kawartha Lakes sub-region was \$3,550 (Ontario - \$2,750).
- 8.2% of patients from Haliburton County and City Of Kawartha Lakes sub-region were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the highest percentage of complex patients.
- The mean health care cost per complex patient in Haliburton County and City Of Kawartha Lakes sub-region was \$20,600 (Ontario - \$22,050).
- 7.2% of patients from Haliburton County and City Of Kawartha Lakes sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the highest percentage of high cost users.
- The mean health care cost per high cost user in Haliburton County and City Of Kawartha Lakes sub-region was \$35,200 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Haliburton County and City Of Kawartha Lakes	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	28.7	17.3	1
Asthma	6.3	7.8	55
Diabetes	8.1	6.8	22
High blood pressure	24.0	18.1	4
Heart disease	8.1	5.0	4

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	32.8	41
Cardiovascular disease	949.6	44
Cerebrovascular disease	115.4	64
COPD	226.9	25
Diabetes	153.2	13
Hypertension	15.5	47.5
Ischemic heart disease	390.4	21.5
Lower respiratory disease	259.7	27
Respiratory disease	698.8	27
Stroke	98.3	65

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,550	12
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$20,600	52
# of patients that are complex	6,475	
% of all patients (health care users) that are complex	8.2%	4
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$35,200	57
# of patients that are high cost users	5,690	
% of patients that are high cost users	7.2%	6

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## NORTHUMBERLAND COUNTY SUB-REGION (903)

- The prevalence rate (per 100) for the population with arthritis (14+) was 28.1 (Ontario - 17.3). **Northumberland County** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with heart disease was 8.3 (Ontario - 5). **Northumberland County** sub-region's rate was **significantly higher** than Ontario.
- The mean health care cost per user in **Northumberland County** sub-region was \$3,150 (Ontario - \$2,750).
- 7.2% of patients from **Northumberland County** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Northumberland County** sub-region was \$20,050 (Ontario - \$22,050).
- 6.5% of patients from **Northumberland County** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Northumberland County** sub-region was \$34,850 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Northumberland County	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	28.1	17.3	2
Asthma	11.8	7.8	5
Diabetes	6.9	6.8	37
High blood pressure	22.0	18.1	16
Heart disease	8.3	5.0	1

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
AGE STANDARDIZED rate per 100,000			
Asthma	42.2	34.3	21
Cardiovascular disease	980.5	916.9	38
Cerebrovascular disease	131.1	133.2	49
COPD	219.1	171.8	28
Diabetes	147.5	100.2	17
Hypertension	14.8	18.0	53
Ischemic heart disease	376.3	314.8	28
Lower respiratory disease	263.6	208.9	26
Respiratory disease	703.0	599.7	26
Stroke	104.6	112.5	58

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$3,150	\$ 2,750	27.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$20,050	\$ 22,050	56
# of patients that are complex	4,065	680,115	
% of all patients (health care users) that are complex	7.2%	5.8%	12
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$34,850	\$ 37,700	63.5
# of patients that are high cost users	3,670	581,670	
% of patients that are high cost users	6.5%	5.0%	19

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## DURHAM NORTH EAST SUB-REGION (904)

- The prevalence rate (per 100) for the population with arthritis (14+) was 22.1 (Ontario - 17.3). **Durham North East** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with asthma was 10.5 (Ontario - 7.8). **Durham North East** sub-region's rate was **significantly higher** than Ontario.
- The mean health care cost per user in **Durham North East** sub-region was \$2,750 (Ontario - \$2,750).
- 6.1% of patients from **Durham North East** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Durham North East** sub-region was \$20,450 (Ontario - \$22,050).
- 5.1% of patients from **Durham North East** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Durham North East** sub-region was \$35,850 (Ontario - \$37,700).



## Chronic Conditions, Complex Patients

Condition	Durham North East	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	22.1	17.3	22
Asthma	10.5	7.8	10
Diabetes	6.8	6.8	40
High blood pressure	19.4	18.1	38
Heart disease	4.2	5.0	56

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	31.9	43
Cardiovascular disease	905.6	51
Cerebrovascular disease	129.9	50
COPD	196.4	40
Diabetes	104.3	40
Hypertension	15.0	50
Ischemic heart disease	334.2	42
Lower respiratory disease	229.5	39
Respiratory disease	661.0	34
Stroke	108.7	50

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$2,750	47.5
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$20,450	53
# of patients that are complex	16,480	
% of all patients (health care users) that are complex	6.1%	38
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$35,850	47.5
# of patients that are high cost users	13,815	
% of patients that are high cost users	5.1%	43

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## DURHAM WEST SUB-REGION (905)

- The prevalence rate (per 100) for the population with asthma was 11.9 (Ontario - 7.8). **Durham West** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with heart disease was 3.4 (Ontario - 5). **Durham West** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The mean health care cost per user in **Durham West** sub-region was \$2,150 (Ontario - \$2,750).
- 4.6% of patients from **Durham West** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Durham West** sub-region was \$19,800 (Ontario - \$22,050).
- 3.7% of patients from **Durham West** sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the lowest percentage of high cost users.
- The mean health care cost per high cost user in **Durham West** sub-region was \$36,550 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Durham West	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	16.5	17.3	49
Asthma	11.9	7.8	4
Diabetes	5.7	6.8	55
High blood pressure	17.3	18.1	48
Heart disease	3.4	5.0	62

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	30.0	47
Cardiovascular disease	858.3	56
Cerebrovascular disease	114.5	65
COPD	139.2	53
Diabetes	78.0	59
Hypertension	19.2	27
Ischemic heart disease	302.6	51
Lower respiratory disease	172.5	56
Respiratory disease	528.6	61
Stroke	98.8	64

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$2,150	66
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$19,800	61
# of patients that are complex	14,045	
% of all patients (health care users) that are complex	4.6%	67
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$36,550	36
# of patients that are high cost users	11,120	
% of patients that are high cost users	3.7%	69

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## SCARBOROUGH NORTH SUB-REGION (906)

- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 657.3 (Ontario - 916.9). **Scarborough North** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 80.0 (Ontario - 171.8). **Scarborough North** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for diabetes was 48.8 (Ontario - 100.2). **Scarborough North** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for hypertension was 7.8 (Ontario - 18). **Scarborough North** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 203.0 (Ontario - 314.8). **Scarborough North** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 106.9 (Ontario - 208.9). **Scarborough North** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 440.4 (Ontario - 599.7). **Scarborough North** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Scarborough North** sub-region was \$2,500 (Ontario - \$2,750).
- 5.8% of patients from **Scarborough North** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Scarborough North** sub-region was \$19,850 (Ontario - \$22,050).
- 4.2% of patients from **Scarborough North** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Scarborough North** sub-region was \$39,600 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Scarborough North	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	14.7	17.3	57
Asthma	F	7.8	
Diabetes	F	6.8	
High blood pressure	19.1	18.1	40
Heart disease	4.9	5.0	38

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
AGE STANDARDIZED rate per 100,000			
Asthma	24.4	34.3	64
Cardiovascular disease	657.3	916.9	75
Cerebrovascular disease	121.8	133.2	61
COPD	80.0	171.8	73
Diabetes	48.8	100.2	76
Hypertension	7.8	18.0	71
Ischemic heart disease	203.0	314.8	75
Lower respiratory disease	106.9	208.9	73
Respiratory disease	440.4	599.7	71
Stroke	104.9	112.5	57

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,500	\$ 2,750	57
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$19,850	\$ 22,050	59
# of patients that are complex	8,995	680,115	
% of all patients (health care users) that are complex	5.8%	5.8%	47
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$39,600	\$ 37,700	16
# of patients that are high cost users	6,545	581,670	
% of patients that are high cost users	4.2%	5.0%	63

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## SCARBOROUGH SOUTH SUB-REGION (907)

- The prevalence rate (per 100) for the population with arthritis (14+) was 13.6 (Ontario - 17.3). **Scarborough South** sub-region's rate was **significantly lower** than Ontario.
- The prevalence rate (per 100) for the population with asthma was 5.4 (Ontario - 7.8). **Scarborough South** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The mean health care cost per user in **Scarborough South** sub-region was \$2,650 (Ontario - \$2,750).
- 6.3% of patients from **Scarborough South** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Scarborough South** sub-region was \$20,900 (Ontario - \$22,050).
- 4.5% of patients from **Scarborough South** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Scarborough South** sub-region was \$39,450 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Scarborough South	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	13.6	17.3	65
Asthma	5.4	7.8	66
Diabetes	8.1	6.8	24
High blood pressure	18.7	18.1	43
Heart disease	5.4	5.0	33

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
AGE STANDARDIZED rate per 100,000			
Asthma	42.8	34.3	20
Cardiovascular disease	900.1	916.9	52
Cerebrovascular disease	157.9	133.2	24
COPD	129.9	171.8	57
Diabetes	122.6	100.2	27
Hypertension	19.3	18.0	24.5
Ischemic heart disease	322.1	314.8	43
Lower respiratory disease	176.4	208.9	55
Respiratory disease	555.0	599.7	57
Stroke	136.5	112.5	16

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,650	\$ 2,750	51
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$20,900	\$ 22,050	50
# of patients that are complex	23,555	680,115	
% of all patients (health care users) that are complex	6.3%	5.8%	36
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$39,450	\$ 37,700	17
# of patients that are high cost users	17,045	581,670	
% of patients that are high cost users	4.5%	5.0%	57

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## Human Resources

### Physicians

- In 2016, there were approximately 2,396 physicians in the Central East LHIN.
  - This represents the equivalent of approximately 148 physicians for every 100,000 persons in the Central East LHIN.
  - The number of physicians in the Central East LHIN increased by close to 8% between 2013 and 2016 with higher growth occurring among family physicians than specialists.
- Between 2013 and 2016, there was an increase of approximately 104 family physicians in the Central East LHIN
  - The majority of the increase in Central East LHIN occurred with 72 additional family physicians between 30-64 years of age.
- In 2016, approximately 15% of family physicians in Central East LHIN were at or beyond the age of retirement (65 years of age or older).

### Nurses

- In 2016, there were 12,095 total nurses in Central East LHIN.
- The total number of nurses increased by 5% between 2013 and 2016.
  - While the number of Registered Nurses in Central East LHIN between 2013 and 2016 decreased, there were substantial increases in the number of Nurse Practitioners (32% increase) and Registered Practical Nurses (19% increase) during the same time period.
- In 2016, there were approximately 746 nurses for every 100,000 residents of Central East LHIN.

### Other Allied Health Professionals

- Between 2013 and 2016, the greatest growth in the number of allied health professionals in Central East LHIN was among psychologists (additional 32 or 16%) and pharmacists (an increase of 188 or about 15%).
- There was also notable growth in the number of speech-language pathologists (additional 24 or 11%), audiologists (5 additional or 10%), optometrists (18 additional or 9%), and occupational therapists (29 additional or 8%) in the Central East LHIN between 2013 and 2016.
- Opticians in the Central East LHIN experienced a 2% reduction in their raw numbers (6 fewer) and slightly higher reductions in their numbers per capita.



Central East LHIN					
Physicians	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Total Family Medicine Physicians</b>					
Number of family medicine physicians	1,174	1,207	1,264	1,278	8.9%
Rate per 100,000 population	74.5	75.9	78.9	78.8	5.8%
<b>Total Specialists</b>					
Number of specialists	1,043	1,060	1,108	1,118	7.2%
Rate per 100,000 population	66.2	66.7	69.1	69.0	4.2%
<b>Total Physicians</b>					
Number of total physicians	2,217	2,267	2,372	2,396	8.1%
Rate per 100,000 population	140.7	142.6	148.0	147.8	5.0%

<b>Family Physicians, by age group - count</b>					
Age <30	14			25	78.6%
Age 30-64	984			1,056	7.3%
Age 65-74	155			169	9.0%
Age 75+	21			28	33.3%
Grand Total	1,174			1,278	8.9%
Age 65+	176			197	11.9%

<b>Family Physicians, by age group – percent</b>					
Age <30	1.2%			2.0%	64.0%
Age 30-64	83.8%			82.6%	-1.4%
Age 65-74	13.2%			13.2%	0.2%
Age 75+	1.8%			2.2%	22.5%
Age 65+	15.0%			15.4%	2.8%

Central East LHIN					
Nurses	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Registered Nurses</b>					
Number of RNs	7,718	7,644	7,626	7,485	-3.0%
Rate per 100,000 population	489.6	481.0	475.9	461.7	-5.7%
<b>Registered Practical Nurses</b>					
Number of RPN nurses	3,692	3,911	4,245	4,410	19.4%
Rate per 100,000 population	234.2	246.1	264.9	272.0	16.1%
<b>Nurse Practitioners</b>					
Number of NP nurses	152	166	179	200	31.6%
Rate per 100,000 population	9.6	10.4	11.2	12.3	27.9%
<b>Total Nurses</b>					
Total Nurse - Number of nurses	11,562	11,721	12,050	12,095	4.6%
Total Nurse - Rate per 100,000 population	733.5	737.5	752.0	746.0	1.7%

Central East LHIN					
Other Regulated Health Professionals	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Audiologists</b>					
Audiologist - Number	52	47	52	57	9.6%
Audiologist - Rate per 100,000 population	3.3	3.0	3.2	3.5	6.6%
<b>Midwives</b>					
Midwife - Number	67	70	59	70	4.5%
Midwife - Rate per 100,000 population	4.3	4.4	3.7	4.3	1.6%
<b>Occupational Therapists</b>					
Occupational Therapist - Number	362	382	391	391	8.0%
Occupational Therapist - Rate per 100,000 population	23.0	24.0	24.4	24.1	5.0%
<b>Opticians</b>					
Optician - Number	331	325	330	325	-1.8%
Optician - Rate per 100,000 population	21.0	20.4	20.6	20.0	-4.5%
<b>Optometrists</b>					
Optometrist - Number	194	205	211	212	9.3%
Optometrist - Rate per 100,000 population	12.3	12.9	13.2	13.1	6.2%
<b>Pharmacists</b>					
Pharmacist - Number	1,217	1,308	1,345	1,405	15.4%
Pharmacist - Rate per 100,000 population	77.2	82.3	83.9	86.7	12.2%
<b>Psychologists</b>					
Psychologist - Number	197	213	224	229	16.2%
Psychologist - Rate per 100,000 population	12.5	13.4	14.0	14.1	13.0%
<b>Speech-Language Pathologists</b>					
Speech-Language Pathologist - Number	223	249	234	247	10.8%
Speech-Language Pathologist - Rate per 100,000 population	14.1	15.7	14.6	15.2	7.7%

## Primary Care

### Primary Care Enrolment

- Almost 1.5 million (n=1,274,407) Central East residents were enrolled with a PEM and 343,647 residents were affiliated with FFS physicians (i.e. not enrolled).
- LHIN residents were primarily affiliated with FHGs (38% of LHIN residents). Almost one-third (31%) were affiliated with a FHO.
- There are 65 practices with 1161 physicians in the Central East LHIN, and physicians were distributed across multiple primary care models, with the majority of physicians practicing either in FHOs (n=554) or FHGs (n=380).

### Selected Measures from the Health Care Experience Survey

#### Self-reported access to, and satisfaction with, primary care

	Ontario (2017)	LHIN (2017)	Range Across CE sub-regions (2014-2017)
Percentage who are satisfied with health care in their community	87%	86%	82% to 90%
Percentage with primary care providers (attached patients)	94%	93%	94% to 97%
Percentage who saw their primary care provider within the same day/next day when sick	40%	39%	32% to 48%
Percentage who went to ED for something that could have been treated by primary care provider	42%	43%	34% to 54%
Percentage who found it difficult to access care after-hours without going to an emergency department	53%	53%	43% to 65%
Percentage who went to walk-in clinic in past 12 months	30%	33%	14% to 41%
Percentage who went to a walk in clinic for something that could have been treated by provider if they were available	92%	94%	87% to 97%

*H=significantly higher than the province*

*L=significantly lower than the province*

- Eighty-six percent (86%) of Central East residents were satisfied with health care in their community.
  - **Durham West** sub-region was **significantly higher** than the provincial proportion at 90%.
- In 2017, 93% of Central East adults (aged 16 years and older) had a primary care provider.
- In 2017, 43% of Central East LHIN residents were able to see their primary care provider within the same day/next day when they were sick.
  - **Peterborough City and County** were **significantly lower** than the province (33%).
- Forty-three (43%) percent of Central East LHIN went to the ED for something that could have been treated by their primary care provider.
- Most (53%) of Central East LHIN residents found it difficult to access after-hours care without going to an ED.
  - **Durham North East** sub-region (43%) reported **significantly lower** than provincial proportions, and **Haliburton County and City Of Kawartha Lakes** sub-region and **Northumberland County** sub-region reported **significantly higher** proportions than the province (65% each).
- Central East LHIN 33% of adults attended walk-in clinics in the previous 12 months.

- Peterborough City and County and Northumberland County sub-regions reported **significantly lower** proportions than the province (14% and 20% respectively), where Durham North East and Durham West sub-regions reported **significantly higher** proportions compared to the province (37% and 41% respectively).
- o Ninety-four percent (94%) felt that their walk-in visit could have been addressed by a primary care provider if one had been available.

## Community Care

- Central East LHIN ranks 12 in CMH&A\_Resident DaysResident Days per 1,000 population with 92 (province is 271).
- Central East LHIN ranks 4 in CSS\_Resident Days (Assisted Living, Overnight stay care)Resident Days per 1,000 population with 468 (province is 366).
- Central East LHIN ranks 4 in CTC\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population 0-18 with 3 (province is 3).
- Central East LHIN ranks 4 in CSS\_Community Visits- Non Face to Face Visits per 1,000 population 75+ with 1,969 (province is 1,556).

**\*no rankings in highest two or lowest two.**

## Mental Health

### Wait Time for Community Services

- Support within housing had the longest median wait times among the community mental health (MH) services in Central East LHIN (365 days) in 2017/18, 290 days longer than the province's median wait for that service.
- Among the substance (SA) services provided in Central East LHIN, case management/supportive counselling and services had the longest median wait times (278 days), 244 days longer than the province's median wait in 2017/18.
- For problem gambling, only community treatment is provided in this LHIN. The median wait time for this treatment was 3 days shorter than the provincial median wait of 10 days.

### Mental Health and Substance Abuse Emergency Department Visits

- In 2016/17, there were 28,257 unscheduled ED visits for Central East residents where the main problem was a MH/SA condition. In total, there were 35,100 visits with a MH/SA condition in any of the diagnostic fields.
- Between 2013/14 and 2016/17, there was 20.4% growth in visits with a MH/SA main problem diagnosis (lower than the province's value of 20.9%) and 20.0% growth in visits with a MH/SA condition in any diagnostic field (lower than the province's value of 21.1%).
- The MH/SA ED visit rate per 1,000 population for Central East LHIN residents was lower than the provincial value (17.4 compared to 19.2). The main problem visit rate increased by 17.0% between 2013/14 and 2016/17.
  - By sub-region, **Scarborough North** had the 2<sup>nd</sup> lowest ED visit rate (8.7 per 1,000 population) where the main problem was a MH/SA condition and 4<sup>th</sup> lowest ED visit rate (11.9 per 1,000 population) where a MH/SA condition was in any of the diagnostic fields.
- Visits with a MH/SA main problem diagnosis accounted for 4.3% of all ED visits for Central East LHIN residents.
- In 2016/17, there were 506 ED visits of Central East residents for opioid overdose. Of those, 46.2% were accidental.
- The crude rate of ED visits for opioid overdose in FY2016/17 for Central East residents was 3.1, lower than the provincial value (3.5). Between 2013/14 and 2016/17, there was a 39.8% growth in the visit rate for opioid overdose for all Central East residents, lower than the province (48.4%).

### Unscheduled emergency department utilization for mental health and substance abuse conditions, Central East LHIN and Ontario residents, 2016/17

Measure	Central East LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient<sup>†</sup></b>				
Main problem visits	28,257	268,514	20.4%	
% of total ED visits	4.3%	4.3%	-	
Any problem visits	35,100	338,260	20.0%	
% of total ED visits	5.3%	5.5%	-	
Main problem, visits per 1,000	17.4	19.2	17.0%	
Any problem, visits per 1,000	21.6	17.1%	16.6%	
ED visits for opioid overdose	506	4,831	43.8%	
% of visits that were accidental	46.2%	50.1%	-	
Crude rate per 10,000 population	3.1	3.5	39.8%	

<sup>†</sup>LHIN of patient results for Ontario exclude out-of-province residents

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

#### Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility

- In 2016/17, there were 25,910 unscheduled ED visits in Central East LHIN hospitals, where the main problem was a MH/SA condition. 2.6% of these visits were made by homeless individuals.
- There were 5,991 admissions and 6,494 active cases who received treatment in adult designated MH units in Central East LHIN hospitals. There were 6,019 discharges from these units with the total days of discharge patients equal to 177,364 days. The mean length of stay in Central East LHIN MH units was 29.5 days, longer than all Ontarians (24.9 days). Residents from outside the LHIN accounted for 17.4% of the active cases treated in Central East LHIN.
- Between 2013/14 and 2016/17, active cases, admissions and discharges increased in Central East LHIN hospitals by 9.2%, 13.6% and 13.8%, respectively. The total days of discharged patients decreased by 1.5%.
- Schizophrenia and psychotic disorders (30.8%) and bipolar and depressive disorders (28.8%) accounted for the largest proportions of active cases in Central East LHIN hospitals in 2016/17. Compared with the provincial values, Central East had larger proportions of active cases for schizophrenia and psychotic disorders and short stay.
- There were 6,696 active cases, 6,291 admissions and 6,322 discharges for Central East LHIN residents from Ontario adult designated MH units. Mean length of stay for Central East LHIN residents was lower than the province (21.0 days compared to 24.8 days). 19.9% of Central East LHIN resident active cases received treatment in hospitals outside the LHIN. Compared with the provincial rates, Central East LHIN residents had lower rates of active cases, admissions, and discharges per 100,000 population age 15+.
  - By sub-region, **Scarborough North** had the 5<sup>th</sup> lowest crude rates of active cases (270.2), of admissions (253.5) and of discharges (258.3) (all per 100,000 population).
  - **Northumberland County** had the 8<sup>th</sup> lowest crude rates of active cases (306.0) and admissions (289.1). This sub-region had the 7<sup>th</sup> lowest crude rate of discharges (293.7 per 100,000 population).
- Active cases, admissions, discharges, total days and the associated rates increased for Central East LHIN residents between 2013/14 and 2016/17.

### Adult designated mental health unit utilization, Central East LHIN hospitals and residents, 2016/17

Measure	Central East LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient</b>				
Active cases	6,696	64,523	8.1%	
Admissions	6,291	60,197	11.5%	
Discharges	6,322	60,607	12.0%	
Total Days	132,820	1,504,690	-1.0%	
Mean Length of Stay	21.0	24.8	-	
% Outflow Active Cases	19.9%	-	-	
Active Cases per 100,000 (age 15+)	487.4	548.5	4.7%	
Admission per 100,000 (age 15+)	457.9	511.7	8.0%	
Discharges per 100,000 (age 15+)	460.1	515.2	8.5%	
<b>SCIPP Categories - % of total active cases</b>				
Short Stay	29.0%	27.4%	-	
Schizophrenia and other psychotic disorders	27.7%	27.0%	-	
Neurocognitive disorders	2.3%	3.1%	-	
Bipolar and depressive disorders	31.0%	29.6%	-	
Personality disorders	2.1%	3.0%	-	
Feeding and eating disorders	0.2%	0.4%	-	
Substance Use disorders	4.1%	5.5%	-	
Other disorders	3.5%	4.0%	-	
<b>LHIN of hospital</b>				
Active cases	6,494	64,738	9.2%	
Admissions	5,991	60,383	13.6%	
Discharges	6,019	60,795	13.8%	
Total Days (discharged patients only)	177,364	1,512,754	-1.5%	
Mean Length of Stay	29.5	24.9	-	
% Inflow Active Cases	17.4%	-	-	

‡Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.



## Surgery and Diagnostic Imaging

### Analysis of Day Surgery and Cardiac Catheterization Utilization

#### Day Surgery and Cardiac Catheterization Visits

- In 2016/17, there were 142,538 day surgery and ambulatory cardiac catheterization visits to Central East LHIN hospitals. Residents from outside the LHIN accounted for 15.6% of the visits.
- Between 2013/14 and 2016/17, there was an increase of 5.5% in Central East LHIN hospital's day surgery and cardiac catheterization visits.
- There were 157,644 day surgery and ambulatory cardiac catheterization visits for Central East LHIN residents. There was an increase in both the number and rate of visits between 2013/14 and 2016/17.
- In 2016/17, 23.7% of these visits occurred in hospitals outside the LHIN.
- The following sub-regions had among the eight highest outflow rates to other LHINs for all Ontario sub-regions:
  - Scarborough North had the 6<sup>th</sup> highest outflow rate.
- Central East LHIN residents had 97.2 day surgery and cardiac catheterization visits per 1,000 this is a test of population. This rate was higher than the provincial rate of 93.9.
- The following sub-regions had among the eight highest rates of visits per 1,000 population for all Ontario sub-regions:
  - Peterborough City and County had the 6<sup>th</sup> highest rate of visits per 1,000 population.
  - Haliburton County and City Of Kawartha Lakes had the 5<sup>th</sup> highest rate of visits per 1,000 population.

#### Day surgery and ambulatory cardiac catheterization visits, Central East LHIN and Ontario, 2016/17

Measure	LHIN	Comments	Ontario†	LHIN % change 2013-14 - 2016/17	Range within LHINs	Range within CE sub-regions
<b>LHIN of hospital</b>						
Visits	142,538		1,322,943	5.5%	27,727 - 158,077	
% Inflow visits	15.6%				0.7% - 58.4%	
<b>LHIN of patient</b>						
Total population	1,621,347		13,982,984	2.9%	235,148 - 1,893,948	
Visits	157,644		1,313,103	7.1%	28,401 - 157,644	10,129 - 34,614
% Outflow visits	23.7%				3.0% - 39.0%	7.2% - 38.1%
Visits per 1,000 population	97.2		93.9	4.1%	66.8 - 151.0	67.6 - 155.5
- age 0-17 years	23.1		22.2		13.9 - 38.4	
- age 18-44 years	43.3		46.5		34.8 - 85.5	
- age 45-64 years	127.7		125.3		93.9 - 183.0	
- age 65-79 years	259.1		239.9		176.5 - 318.4	
- age 80+ years	223.1		202.7		138.5 - 260.4	

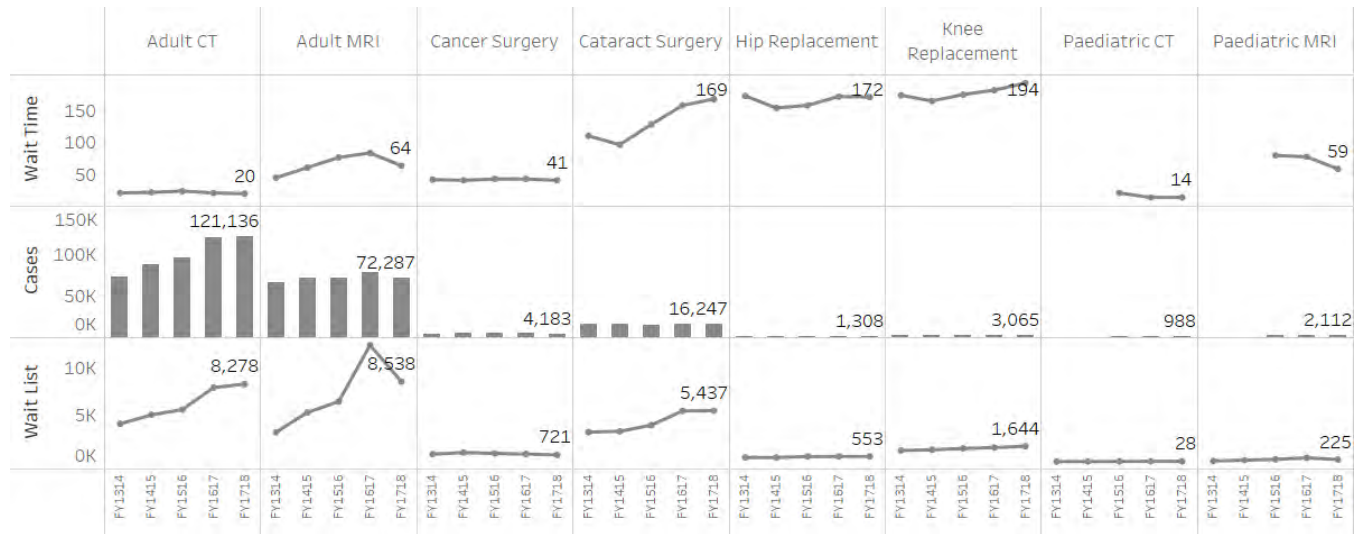
†LHIN of patient results for Ontario exclude out-of-province residents

## Surgical & Diagnostic Imaging Wait Times

### Central East LHIN Priority Procedures:

#### Wait 2 90th Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

##### LHIN of Treatment

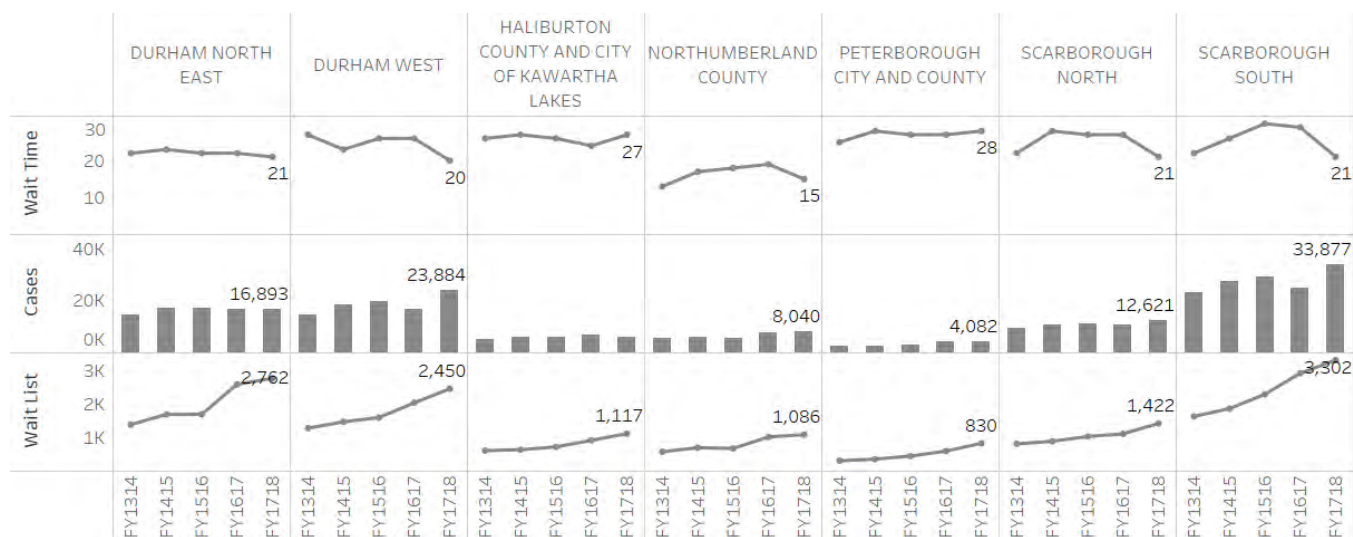


## Adult CT

- There were 121,136 adult CT scans completed in FY 2017-18; 1,102 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 20 days and the **shortest** of all reporting LHINs, 1 day shorter than the previous fiscal.
- In 2017/18, hospitals in the Central East LHIN had the **shortest** wait time for adult CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 8,278 patients; 382 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Adult CT (Days), Completed Cases and Wait List Queue Trends



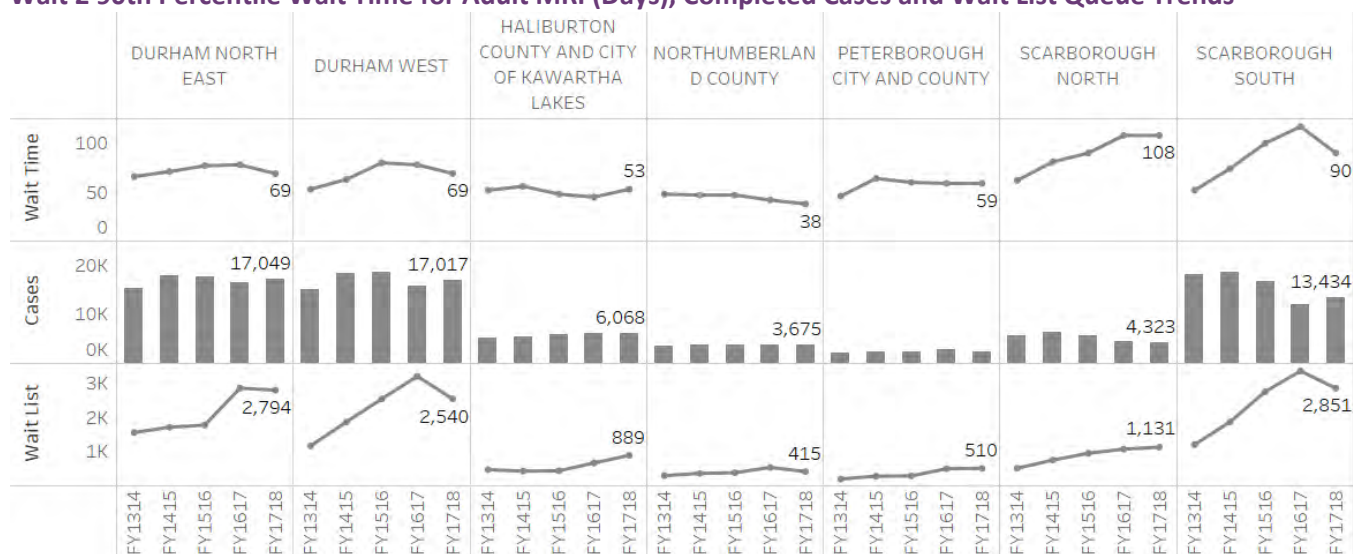
- Central East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 15 days to 28 days.
- Northumberland County sub-region wait time of 15 days was the **shortest** across the province for this period.

## Adult MRI

- There were 72,287 adult MRI scans completed in FY 2017-18; 5,725 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 64 days, 20 days shorter than the previous fiscal.
- In 2017/18, hospitals in the Central East LHIN had the 3<sup>rd</sup> shortest wait time for adult MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 8,538 patients; 3,889 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Adult MRI (Days), Completed Cases and Wait List Queue Trends



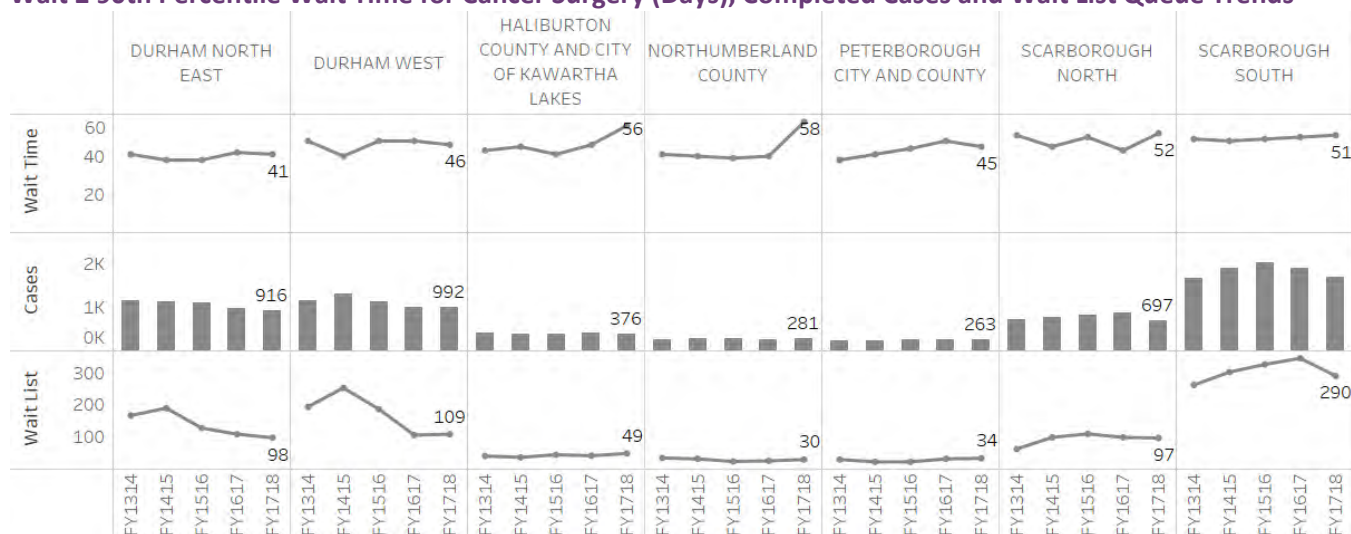
- Central East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 38 days to 108 days.

## Cancer Surgery

- There were 4,183 cancer surgeries completed in FY 2017-18; 649 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 41 days, 2 days shorter than the previous fiscal.
- In 2017/18, hospitals in the Central East LHIN had the 2<sup>nd</sup> shortest wait time for cancer surgery (tied with 3 other LHINs).
- The wait list queue at the start of FY 2017-18 was 721 patients; 87 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Cancer Surgery (Days), Completed Cases and Wait List Queue Trends



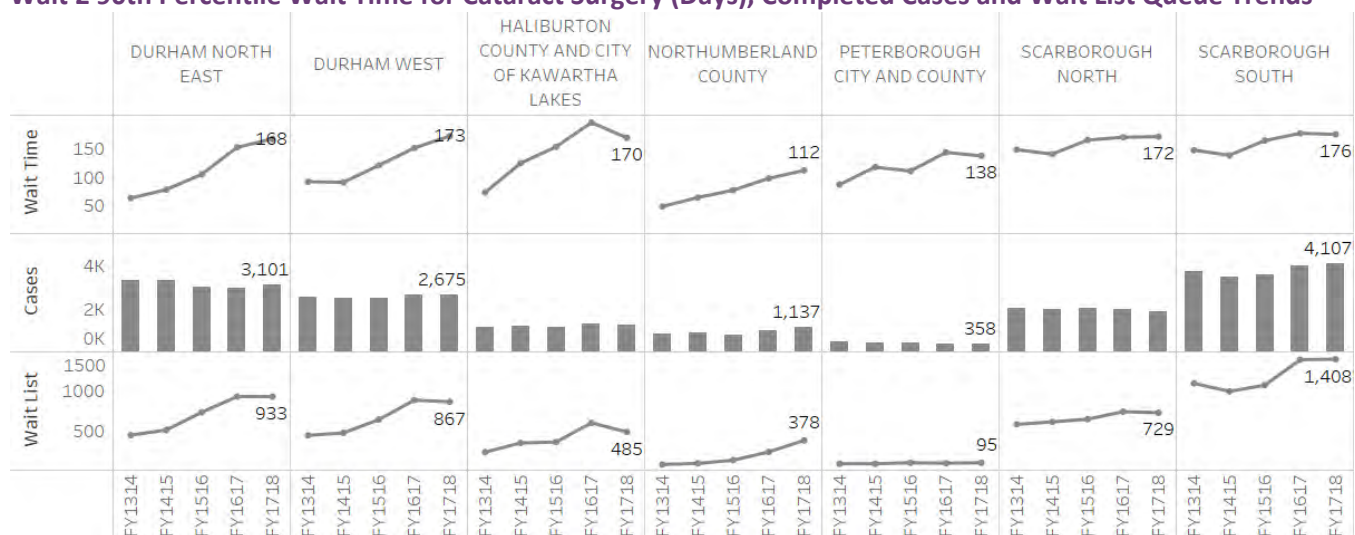
- Central East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 41 days to 58 days.

## Cataract Surgery

- There were 16,247 cataract surgeries completed in FY 2017-18; 372 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 169 days, 10 days longer than the previous fiscal.
- In 2017/18, hospitals in the Central East LHIN had the 4<sup>th</sup> shortest wait time for cataract surgery.
- The wait list queue at the start of FY 2017-18 was 5,437 patients; 27 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Cataract Surgery (Days), Completed Cases and Wait List Queue Trends



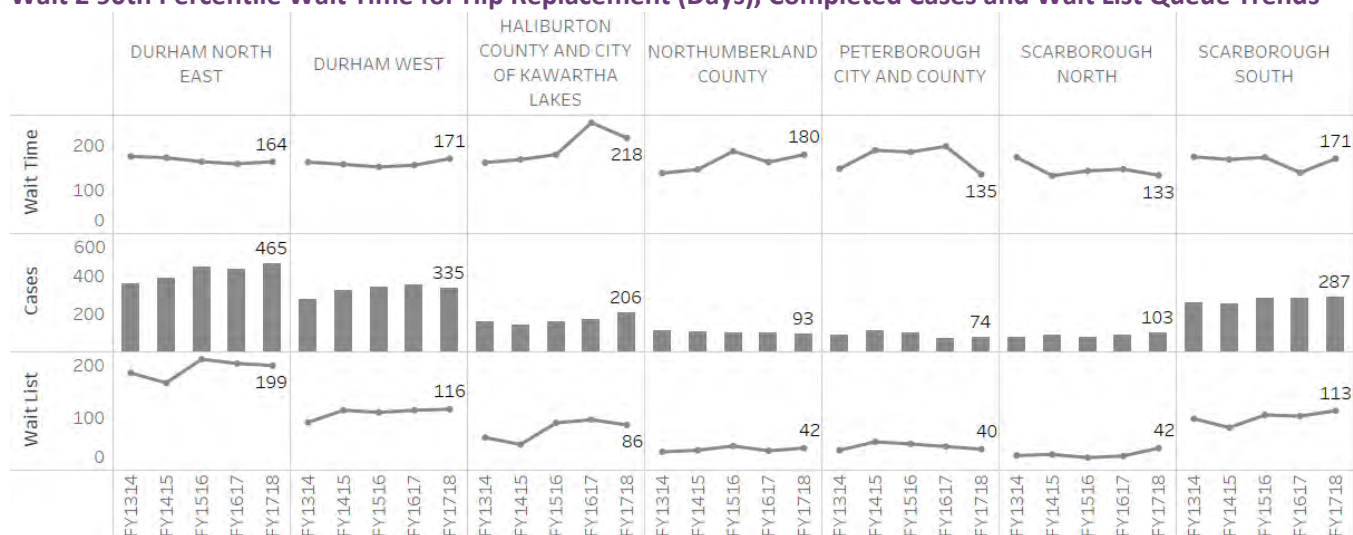
- Central East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 112 days to 176 days.

## Hip Replacement

- There were 1,308 hip replacement surgeries completed in FY 2017-18; 29 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 172 days, 1 day shorter than the previous fiscal.
- In 2017/18, hospitals in the Central East LHIN had the 3<sup>rd</sup> shortest wait time for hip replacement surgery.
- The wait list queue at the start of FY 2017-18 was 553 patients; 2 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Hip Replacement (Days), Completed Cases and Wait List Queue Trends



- Central East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 133 days to 218 days.
- Northumberland County sub-region wait time of 133 days was the **shortest** across the province for this period.

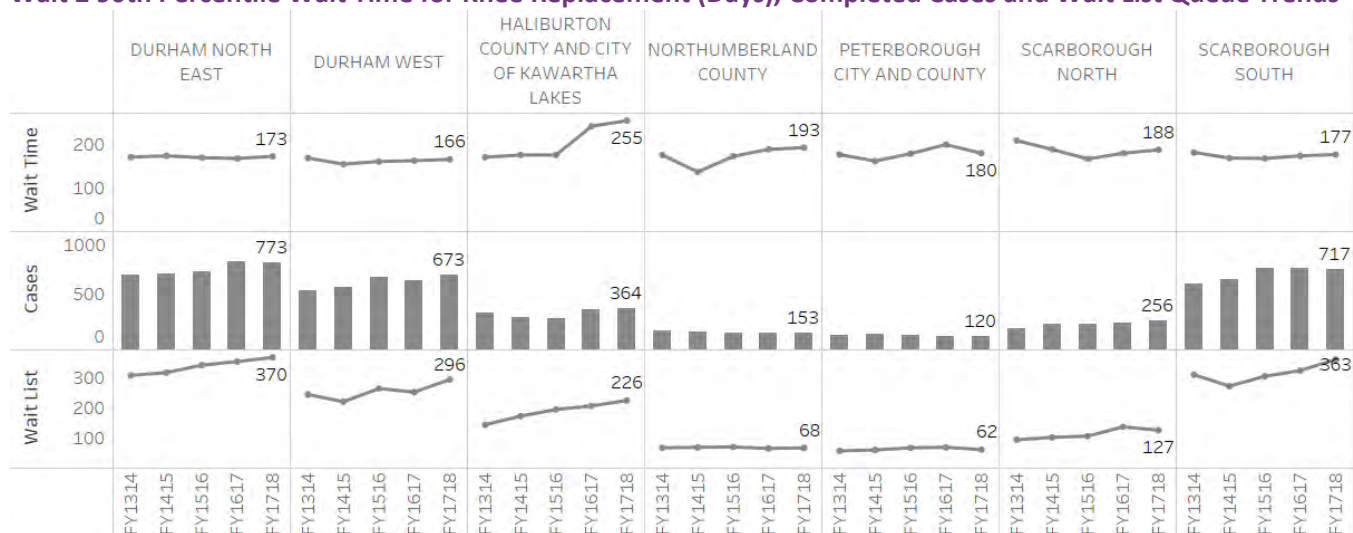


## Knee Replacement

- There were 3,065 knee replacement surgeries completed in FY 2017-18; 49 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 194 days, 11 days longer than the previous fiscal.
- In 2017/18, hospitals in the Central East LHIN had the 5<sup>th</sup> shortest wait time for knee replacement surgery.
- The wait list queue at the start of FY 2017-18 was 1,644 patients; 142 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Knee Replacement (Days), Completed Cases and Wait List Queue Trends



- Central East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 166 days to 255 days.

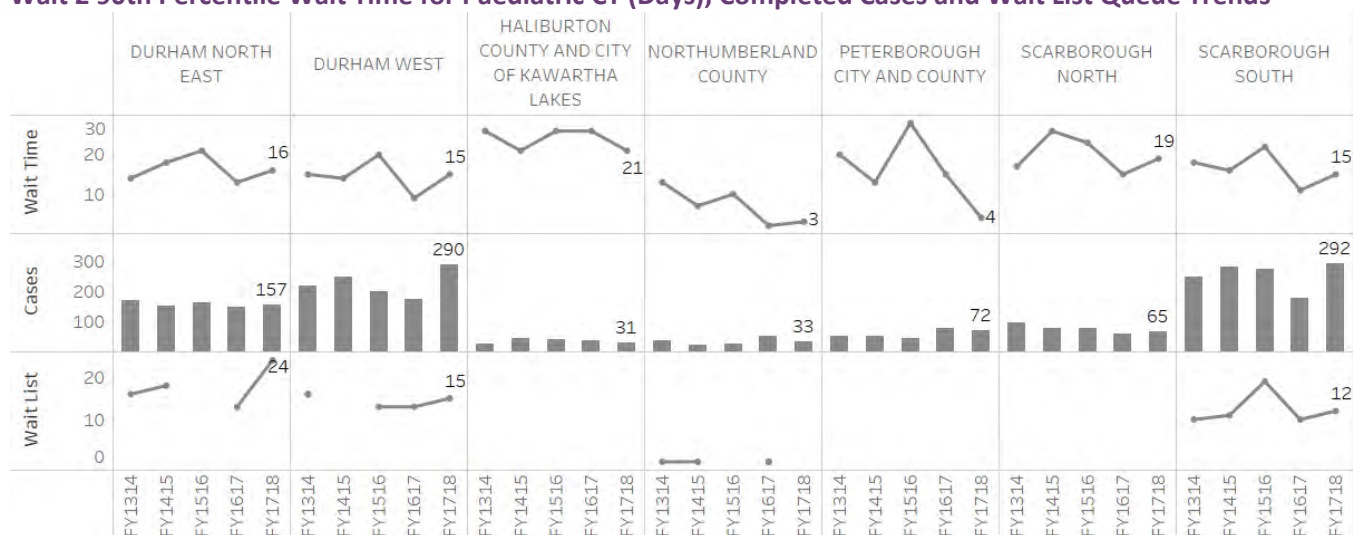


## Paediatric CT

- There were 988 paediatric CT scans completed in FY 2017-18; 67 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 14 days and the **shortest** of all reporting LHINs, similar to the previous fiscal.
- In 2017/18, hospitals in the Central East LHIN had **shortest** wait time for paediatric CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 28 patients; 3 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Paediatric CT (Days), Completed Cases and Wait List Queue Trends



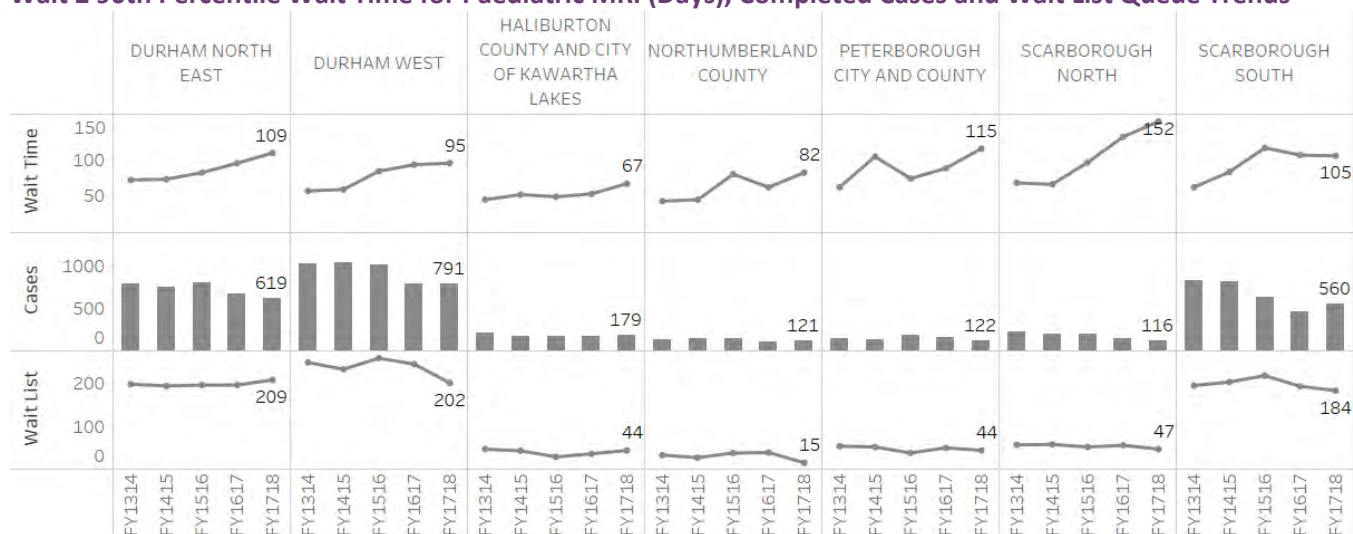
- Central East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 3 days to 21 days.
- **Northumberland County** sub-region wait time of 3 days was the **shortest** across the **province** for this period.

## Paediatric MRI

- There were 2,112 paediatric MRI scans completed in FY 2017-18; 355 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 59 days and the **shortest** of all reporting LHINs, 19 days shorter than the previous fiscal.
- In 2017/18, hospitals in the Central East LHIN had the **shortest** wait time for paediatric MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 225 patients; 179 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Paediatric MRI (Days), Completed Cases and Wait List Queue Trends



- Central East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 67 days to 152 days.

## Oncology and Dialysis

### Ambulatory Oncology Utilization

- In 2016/17, there were 67,439 ambulatory oncology visits to hospital(s) in Central East LHIN.
- Since 2014/15, visits in Ontario have increased by 9%. The number of visits to Central East LHIN hospitals increased by 4% and visits for Central East LHIN residents have increased by 5%. In 2016/17, ambulatory oncology visits per 1,000 population for residents of Central East LHIN is 71.6 (Ontario - 75.7). Of note, the visits rate for age group 0-17 years (5.4) (Ontario - 5.0) is among the 4 highest visit rates in the province.
- Notable (top 8/bottom 8) oncology visit rates by age group when compared to all sub-regions were:
  - Age group 0 – 17 years, **Haliburton County and City Of Kawartha Lakes** (0.8), **Northumberland County** (7.0) are among the 8 highest visit rates in Ontario. (Ontario - 5.0)
  - Age group 65 – 79 years, **Peterborough City and County** (194.8) has among the 8 lowest visits rates in Ontario. (Ontario - 255.4).
- 47% of ambulatory oncology visits by Central East LHIN residents were to hospitals outside of Central East LHIN.
  - **Scarborough North** (76%) and **Scarborough South** (70%) have high outflow, primarily to **Toronto Central LHIN**.
- 9% of ambulatory oncology visits to Central East LHIN hospitals were by non-Central East LHIN residents.

Ambulatory Oncology	Central East	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory oncology visits	67,439	1,059,358		Increase	
% Inflow oncology visits	8.9%				
<b>LHIN of patient</b>					
Ambulatory oncology visits	116,038	1,057,888		Increase	6,950 -32,504
% Outflow oncology visits	47.1%				
Visits per 1,000 population	71.6	75.7		Increase	64.4 -92.2
Visit rate/1,000 population age 0-17 years	5.4	5.0	4th highest		0.8 -7.0
Visit rate/1,000 population age 18-44 years	15.1	15.9			11.3 -20.0
Visit rate/1,000 population age 45-64 years	102.1	106.7			87.7 -115.4
Visit rate/1,000 population age 65-79 years	236.5	255.4			194.8 -267.4
Visit rate/1,000 population age 80+ years	176.9	191.6			131.0 -212.0

Ambulatory Oncology - Sub-Region	Central East	Peterborough City and County	Haliburton County and City Of Kawartha Lakes	Northumberland and County	Durham North East	Durham West	Scarborough North	Scarborough South
<b>LHIN of hospital</b>								
Ambulatory oncology visits	67,439							
% Inflow oncology visits	8.9%							
<b>LHIN of patient</b>								
Ambulatory oncology visits~	116,038	9,922	8,719	6,950	21,933	22,645	13,372	32,504
% Outflow oncology visits	47.1%	19.0%	31.1%	22.8%	28.6%	40.4%	76.0%	37.2%
Visits per 1,000 population	71.6	70.2	92.2	92.2	68.6	64.4	70.3	72.6
Visit rate/1,000 population age 0-17 years	5.4	6.7	0.8	7.0	5.1	5.1	6.7	5.8
Visit rate/1,000 population age 18-44 years	15.1	11.8	13.0	20.0	14.1	17.0	11.3	16.3
Visit rate/1,000 population age 45-64 years	102.1	89.4	113.2	87.7	94.6	103.0	94.3	115.4
Visit rate/1,000 population age 65-79 years	236.5	194.8	218.2	252.4	212.8	246.0	249.5	267.4
Visit rate/1,000 population age 80+ years	176.9	131.3	131.0	166.6	212.0	178.7	161.2	200.2

### Ambulatory Dialysis Utilization

- In 2016/17, there were 169,017 ambulatory dialysis visits to hospital(s) in Central East LHIN.
- Since 2014/15, visits in Ontario have increased by 3%. The number of visits to Central East LHIN hospitals increased by 4% and visits for Central East LHIN residents have increased by 5%.
- The rate of ambulatory dialysis visits per 1,000 population for residents of Central East LHIN is 101.6 (Ontario - 90.4) and is among the 4 highest visit rates in the province.
- Dialysis visits per 1,000 population for age group 0-17 years (2.3 vs. Ontario - 1.2), age group 45-64 years (130.1 vs. Ontario - 105.3) and age group 65-79 years (310.6 vs. Ontario - 285.3) are among the 4 highest visit rates in the province for these age group.
- 14% of ambulatory dialysis visits by Central East LHIN residents were to hospitals outside of Central East LHIN.
- 16% of ambulatory dialysis visits to Central East LHIN hospitals were by non-Central East LHIN residents.

*Note: Ambulatory dialysis visit volumes for residents in age group 0-17 are low to none across all sub-regions. Caution should be used when interpreting visit rates in this age group.*

Ambulatory Dialysis	Central East	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory dialysis visits	169,017	1,269,794	2nd highest	Increase	
% Inflow dialysis visits	16.0%				
<b>LHIN of patient</b>					
Ambulatory dialysis visits	164,735	1,264,676		Increase	7,044 -63,206
% Outflow dialysis visits	13.9%				
Visits per 1,000 population	101.6	90.4	4th highest	Increase	60.6 -141.1
Visit rate/1,000 population age 0-17 years	2.3	1.2	Highest		0.0 -7.9
Visit rate/1,000 population age 18-44 years	22.8	21.8			16.2 -29.8
Visit rate/1,000 population age 45-64 years	130.1	105.3	4th highest		74.8 -221.5
Visit rate/1,000 population age 65-79 years	310.6	285.3	4th highest		170.4 -506.5
Visit rate/1,000 population age 80+ years	422.4	426.7			346.5 -492.6

Ambulatory Dialysis - Sub-Region	Central East	Peterborough City and County	Haliburton County and City Of Kawartha Lakes	Northumberland and County	Durham North East	Durham West	Scarborough North	Scarborough South
<b>LHIN of hospital</b>								
Ambulatory dialysis visits	169,017							
% Inflow dialysis visits	16.0%							
<b>LHIN of patient</b>								
Ambulatory dialysis visits~	164,735	12,572	10,637	7,044	27,487	21,310	22,479	63,206
% Outflow dialysis visits	13.9%	0.9%	5.5%	1.2%	7.6%	7.2%	22.3%	21.2%
Visits per 1,000 population	101.6	88.9	112.5	93.4	85.9	60.6	118.1	141.1
Visit rate/1,000 population age 0-17 years	2.3	2.1	7.9	0.0	3.8	0.0	0.0	3.7
Visit rate/1,000 population age 18-44 years	22.8	17.5	20.0	19.9	24.1	18.2	16.2	29.8
Visit rate/1,000 population age 45-64 years	130.1	107.7	74.8	84.6	108.3	82.3	131.2	221.5
Visit rate/1,000 population age 65-79 years	310.6	170.4	285.2	209.4	212.6	222.5	442.9	506.5
Visit rate/1,000 population age 80+ years	422.4	391.4	385.0	346.5	455.8	360.5	396.8	492.6

\*Ranking: Top or bottom 4 ranking in the province, compared to other LHINs.

^ Trend: "Increase/decrease" when there is a change more than 1%, otherwise, "stable"

~ There are some records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables with the LHIN name but as SR unassigned.

## Home Care

### Home Care Patient Referrals

- In 2017/18, there were 78,761 active home care patient referrals in the Central East LHIN, which was the second highest in Ontario.
  - The **Scarborough South** sub-region had the largest proportion of Central East LHIN patient referrals in 2017/18 at 17,860.
  - Across Ontario's sub-regions, **Scarborough South** and **Durham North East** had the seventh and eighth highest number of active patient referrals with 17,860 and 15,879, respectively.

### Active Patient Referrals 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
<b>Durham North East</b>	14,935	14,753	15,879	8 <sup>th</sup> highest
<b>Durham West</b>	12,102	12,104	13,137	
<b>Haliburton and Kawartha Lakes</b>	6,732	6,733	7,341	
<b>Northumberland</b>	4,704	4,978	5,211	
<b>Peterborough</b>	9,413	9,376	9,558	
<b>Scarborough North</b>	6,155	6,586	7,293	
<b>Scarborough South</b>	15,389	16,502	17,860	7 <sup>th</sup> highest
<b>Out of LHIN Region</b>	764	880	1,026	
<b>Unknown Region</b>	3,376	3,251	1,456	
<b>CE Total</b>	73,570	75,163	78,761	

\*Rank based on 2017/18 active patient referrals

### Home Care Referral Rate

- In 2017/18, Central East LHIN's utilization rate was lower than Ontario's (47.9 compared to 48.2).
  - Within the LHIN, the utilization rate ranged from 37.3 referrals per 1,000 in **Durham West** to 77.6 in Haliburton and Kawartha Lakes.
  - Across Ontario's sub-regions, the utilization rate for **Haliburton County and City Of Kawartha Lakes** (77.6), was the fourth highest rate in the province.

### Referrals (per 1,000 population) 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
<b>Durham North East</b>	47.5	46.1	49.6	
<b>Durham West</b>	34.9	34.4	37.3	
<b>Haliburton and Kawartha Lakes</b>	71.7	71.2	77.6	4 <sup>th</sup> highest
<b>Northumberland</b>	63.0	66.0	69.1	
<b>Peterborough</b>	67.3	66.3	67.6	
<b>Scarborough North</b>	32.7	34.6	38.3	
<b>Scarborough South</b>	34.7	36.9	39.9	
<b>CE Total</b>	45.9	46.4	47.9	

\*Rank based on 2017/18 utilization rates

## Home Care Services

- In Central East LHIN, there were 1,185,425 home care visits and 4,116,219 service hours in 2017/18.
- The rate of home care visits was 720.7 per 1,000 population and the rate of service hours was 2,502.7 per 1,000 population.
- Central East had the lowest physiotherapy visits per 1,000 population.
- The following sub-regions had among the eight highest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - Peterborough City and County had the 6<sup>th</sup> highest rate of case management visits.
  - Haliburton County and City Of Kawartha Lakes had the 7<sup>th</sup> highest rate of case management visits.
  - Northumberland County had the 5<sup>th</sup> highest rate of case management visits.
- The following sub-regions had among the eight lowest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - Durham North East had the 6<sup>th</sup> lowest rate of physiotherapy visits.
  - Durham West had the 3<sup>rd</sup> lowest rate of nutrition visits.
  - Durham West had the 5<sup>th</sup> lowest rate of physiotherapy visits.
  - Durham West had the 3<sup>rd</sup> lowest rate of social work visits.
  - Scarborough North had the 6<sup>th</sup> lowest rate of nursing visits.
  - Scarborough North had the 8<sup>th</sup> lowest rate of nutrition visits.
  - Scarborough North had the 4<sup>th</sup> lowest rate of physiotherapy visits.
  - Scarborough North had the **lowest** rate of social work visits.
  - Scarborough North had the 3<sup>rd</sup> lowest rate of speech language therapy visits.
  - Scarborough North had the 7<sup>th</sup> lowest rate of total visits rate.
  - Scarborough South had the 4<sup>th</sup> lowest rate of nutrition visits.
  - Scarborough South had the 3<sup>rd</sup> lowest rate of physiotherapy visits.
  - Scarborough South had the 5<sup>th</sup> lowest rate of social work visits.
  - Scarborough South had the **lowest** rate of speech language therapy visits.
- Between 2014/15 and 2017/18 there was an increase in total visits of 11.5% and an increase in total hours of 20.4% in Central East LHIN. During this period nursing visits increased by 19.2%, physiotherapy visits decreased by 39.0%, occupational therapy visits decreased by 14.0%, speech language pathology visits decreased by 10.3%, case management visits increased by 19.0%, nursing shift hours increased by 19.5% and personal support hours increased by 18.1%.
- Between 2014/15 and 2017/18 nursing visits rate increased by 15.2%, physiotherapy visit rate decreased by 41.0%, occupational therapy visit rate decreased by 16.9%, speech language pathology visit rate decreased by 13.4%, case management visit rate increased by 15.0%, nursing shift hours rate increased by 15.5% and personal support hours rate increased by 14.1%.



## Summary of Home Care Service by Type, Central East LHIN, 2017/18

	Central East LHIN Residents	Ontario Residents*		LHIN % Change 2014/15 to 2017/18	Range across CE sub-regions**
<b>Service Visits</b>					
<b>All Visits†</b>	1,185,425	11,528,751		11.5%	76,469-266,512
Nursing Visit	776,989	7,539,458		19.2%	47,316-180,816
Physiotherapy	43,341	738,685		-39.0%	3,302-8,461
Occupational Therapy	63,860	615,215	2 <sup>nd</sup> highest	-14.0%	3,605-13,997
Social Work	2,503	56,973		-43.5%	33-925
Nutrition and Dietetic	2,066	47,949		-11.2%	175-423
Speech Language Pathology	24,557	273,735		-10.3%	1,477-8,340
Case Management	272,057	2,211,107	Highest	19.0%	20,443-61,658
<b>Service Hours</b>					
<b>All Hours</b>	4,116,219	34,396,919		20.4%	192,255-1,291,590
Nursing Shift	275,709	2,366,020		19.5%	8,492-75,448
Personal Support Work and Homemaking	3,764,172	31,319,568		18.1%	179,345-1,178,277
Respite	76,338	711,331		n/a	2,069-37,865
<b>Service Visits per 1,000 population</b>					
<b>All Visits per 1,000 population †</b>	720.7	810.2		7.7%	492.9-1,152.9
Nursing Visit	472.4	529.8		15.2%	294.0-746.7
Physiotherapy	26.4	51.9	Lowest	-41.0%	18.9-70.9
Occupational Therapy	38.8	43.2		-16.9%	29.6-62.3
Social Work	1.5	4.0	2 <sup>nd</sup> lowest	-45.5%	0.2-6.5
Nutrition and Dietetic	1.3	3.4	Lowest	-14.2%	0.9-2.3
Speech Language Pathology	14.9	19.2		-13.4%	8.0-26.1
Case Management	165.4	155.4		15.0%	117.1-271.1
<b>Service Hours per 1,000 population</b>					
<b>All Hours</b>	2,502.7	2,417.3		16.3%	1,840.5-3,044.1
Nursing Shift	167.6	166.3		15.5%	89.8-215.2
Personal Support Work and Homemaking	2,288.6	2,201.0		14.1%	1,679.7-2,875.3
Respite	46.4	50.0		n/a	18.3-84.6

\*Not all LHINs offer the same services or report case management services in the same manner.

\*\*Service rates per 1,000 population are calculated using 2017/18 service levels divided by 2016 population estimates from the Ministry of Finance. Typically 2017 population estimates would be used but they were not available at the sub-region level at time of calculation.

†Includes visits for respiratory, psychology, and 'other' service types (not shown), which are not consistently reported/available in all LHINs.

n/a – not applicable due to significant changes in funding and recording

## Palliative Care

### Services Received at Home by Palliative Patients FY 2016/2017

	Provincial Ranking	LHIN	Range Across CE sub-regions
Percent of patients who received palliative home visits(home servicers or physician) in the last 90 days of life	11	32%	28% to 36%
Percent of patients who received palliative home servicers in the last 90 days of life	9	24%	18% to 30%
Percent of patients who had physician home visits in the last 90 days of life	12	22%	18% to 28%
Percent of patients who receive palliative home services who died in hospital	13	34%	19% to 50%
Percent of palliative care patients discharged home from hospital with the discharge status "Home with Support"	9	84%	81% to 90%
Mean days spent at home/residence in last 6 months of life	9	160 days	157 to 165 days

*†Ranking in the province, compared to other LHINs.*

### Interpretation

- In 2016/2017, 32% of patients in Central East LHIN received palliative home visits in the last 90 days of life, which is lower than the provincial value of 36%.
  - Within the Central East LHIN, the **Scarborough South** sub-region reported only 28% of patients received palliative home visits in the last 90 days of life, where the **Peterborough City and County** sub-region had the highest percentage at 36%, matching the provincial value.
- In 2016/2017, the percent of patients in Central East LHIN who received palliative home servicer visits in the last 90 days of life was marginally lower than the province (24% vs 25%, respectively).
  - **Northumberland County** sub-region reported 30% patients received home servicer visits in the last 90 days of life, which were the highest in the Central East LHIN. **Scarborough South** sub-region reports the lowest percentage among the sub-regions at 18%.
- In the Central East LHIN, the percentage of patients who received physician home visits in the last 90 days of life was 22%, which is 6% lower than the provincial value.
  - **Peterborough City and County** sub-region reported the highest percentage at 28%, which matches the provincial percentage. **Scarborough South** reported the lowest percentage of patients who received physician home visit in the last 90 days of life at 18%.
- Across Ontario, Central East LHIN reported that 34% of patients who received palliative home services who died in hospital, which ranks 13<sup>th</sup> out of the 14 LHINs.
  - There is dramatic variation of percentages of patients who received palliative care who died in hospital across Central East sub-regions. The **Durham West** sub-region has the lowest percentage of palliative patients dying in hospital at 19%. On the other hand, **Haliburton County and City Of Kawartha Lakes** reports 50% of patients who received palliative care died in hospital, one of the highest percentages in Ontario.

- Across LHINs, Central East reports that 84% of palliative care patients discharged home with “Home with Supports” status in 2016/2017, slightly lower than the provincial 85%.
  - Within Central East, the sub-regions vary from 81% in [Durham North East](#) to 90% in [Scarborough South](#) regarding palliative patients discharged with “Home with Supports” status.
- Central East LHIN’s mean number of days at home among palliative patients in the last 6 months across all LHINs was 157 days, which is slightly less than the provincial value of 160 days.
  - Central East sub-regions vary in mean number of days that palliative patients spend at home in their last 6 months, ranging from 157 days in [Scarborough South](#) to 165 days in [Northumberland County](#) sub-region.

### Palliative Hospital System Measures, Central (FY 2016/17)

	Provincial Ranking	LHIN	Range Across the sub-regions
Percent of patients who had one or more unplanned ED visits in the last 30 days of life	13	58%	55% - 61%
Percent of patients who had two or more unplanned ED visits in the last 30 days of life	6	15%	13% - 16%
Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days	5	20%	14% - 26%
Percent of people who die in hospital (all hospital settings and acute only)	14	58%	40% - 63%
Percent of people who die in acute hospital	10	46%	33% - 56%
Percent of patients who had two or more acute inpatient admissions in the last 30 days of life	10	6%	5% - 7%

### LHIN Comparison

- Central East LHIN was **significantly higher** than the province in the following indicators:
  - Percent of patients who had one or more unplanned ED visits in the last 30 days of life
  - Percent of patients who had two or more unplanned ED visits in the last 30 days of life
  - Percent of people who died in hospital (all hospital settings and acute only)
  - Percent of people who died in acute hospital
  - Percent of patients who had two or more acute inpatient admissions in the last 30 days of life
    - For percent of patients who had one or more unplanned ED visits in the last 30 days of life, the following sub-regions were **significantly higher** than the province: [Haliburton County](#) and [City of Kawartha Lakes](#), [Scarborough North](#), and [Scarborough South](#).
    - For percent of patients who had two or more unplanned ED visits in the last 30 days of life, the following sub-regions were **significantly higher** than the province: [Haliburton County](#) and [City of Kawartha Lakes](#), [Durham North East](#), and [Scarborough South](#).

- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, **Durham North East** was **significantly lower** than the province.
- For percent of people who died in hospital (all hospital settings and acute only), the following sub-regions were **significantly higher** than the province: **Durham North East, Durham West, Scarborough North, and Scarborough South**.
- For percent of people who died in acute hospital, **Durham North East** was **significantly lower** than the province. The following sub-regions were **significantly higher**: **Peterborough City and County, Haliburton County and City of Kawartha Lakes, Northumberland County, Scarborough North, and Scarborough South**.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, **Northumberland County and Scarborough North** were **significantly higher** than the province.

### Change Over Time

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, an average annual growth rate of -1% was observed across the Central East LHIN ranking 8th provincially.
  - Across sub-regions, **Durham West** (1%) and **Scarborough North** (-2%) were observed highest and lowest, respectively.
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, an average annual growth rate of -1% was observed across the Central East LHIN ranking 11th provincially.
  - Across sub-regions, **Peterborough City and County** (3%) and **Scarborough North** (-5%) were observed highest and lowest, respectively.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, an average annual growth rate of 1% was observed across the Central East LHIN ranking 5th provincially.
  - Across sub-regions, **Scarborough North** (5%) and **Peterborough City and County** (-1%) were observed highest and lowest, respectively.
- For percent of people who died in hospital (all hospital settings and acute only), an average annual growth rate of -2% was observed across the Central East LHIN ranking 9th provincially.
  - Across sub-regions, **Durham West** (0%) and **Northumberland County** (-3%) were observed highest and lowest, respectively.
- For percent of people who died in acute hospital, an average annual growth rate of -2% was observed across the Central East LHIN ranking 6th provincially.
  - Across sub-regions, **Durham West** (0%) and **Haliburton County and City of Kawartha Lakes** (-3%) were observed highest and lowest, respectively.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, an average annual growth rate of -2% was observed across the Central East LHIN ranking 10th provincially.
  - Across sub-regions, **Durham West** (1%) and **Northumberland County** (-7%) were observed highest and lowest, respectively.

## Emergency Department

### Emergency Department Utilization

- In 2016/17, there were 610,686 ED visits to Central East LHIN hospitals, an increase of 4.7% from 2013/14. In the same time-period, the number of ED visits in the province increased by 6.5%.
- Central East's crude ED visit rate of 408.9 ED visits per 1,000 population was 9<sup>th</sup> highest in the province, slightly lower than the provincial rate (442.2). This represented a 3.4% incline in crude visit rate in the LHIN from 2013/14 during which time the provincial crude visit rate climbed by 3.0%.
- Age adjusted ED visit rates per 1,000 population were highest for seniors 80+ at 874 visits per 1,000 population, following by seniors aged 65-79 (489 visits / 1,000 population), children aged 0-17 (403 visits per 1,000 population), adults aged 18-44 years (369 visits per 1,000 population) while adults aged 45-64 years had the lowest usage rate in LHIN at 357 visits per 1,000 population, or less than half of the highest user age group.
  - **Scarborough North** residents had the lowest ED visit rate of Central East's 7 sub-regions, at 267 visits per 1000 population and was also the 6<sup>th</sup> lowest sub-region in the province.
  - **Haliburton County and City Of Kawartha Lakes** sub-region had the highest crude ED visit rate at 766 visits per 1,000 population.
  - Overall, 4 of Central East's 7 sub-regions had crude ED visit rates below the provincial value, while 3 had rates above the provincial value.
- Between 2013/14 and 2016/17 the number of Central East LHIN residents visiting the ED with lower acuity levels (CTAS IV and V) declined 0.4% to 220,861 visits. During this same time-period, visits by Ontario residents with CTAS IV and V declined 2.2%.
- Between 2013/14 and 2016/17 the number of visits with CTAS III increased by 9.9% and CTAS I & II increased by 11.4%, while provincially these numbers increased by 9.4% and 15.8% respectively.
- Overall, Central East LHIN ranked 7<sup>th</sup> highest in the province in proportion of ED visits by residents that were lower acuity (33.3% for Central East, and 33.5% for the province).
  - 3 out of 7 of Central East's sub-regions had a lower proportion of ED visits with lower acuity (CTAS IV and V) than the province.
  - **Scarborough North** had the lowest proportion of ED visits with lower acuity of the LHIN's 7 sub-regions, at 20.8%, while **Haliburton County and City Of Kawartha Lakes** had the highest at 47.7%.
- The most common causes for ED visits by Central East LHIN residents were diseases or disorders of the digestive system, diseases or disorders of the skin & breast, and diseases or disorders of the ear, nose or throat and accounted for 10.5%, 7.6%, and 7.0% of ED visits by Central East LHIN residents respectively.
- Follow-up examinations and other non-emergent conditions ranked 7<sup>th</sup> as a cause of ED visits and accounted for 5.2% of ED visits by Central East LHIN residents.
- 17.3% of the patients who visited ED in Central East LHIN hospitals arrived via ambulance in FY16/17, as compared to 15.6% for the province.
  - The proportion of ED visits that arrived by ambulance ranged from a low of 12.8% in **Haliburton County and City Of Kawartha Lakes** sub-region to a high of 18.5% in **Scarborough South**.
- 9.3% of the patients who visited ED in Central East LHIN hospitals were admitted in FY16/17, as compared to 9.8% for the province.
  - The proportion of ED visits that resulted in a patient being admitted to hospital ranged from a low of 7.0% in **Haliburton County and City Of Kawartha Lakes** sub-region to a high of 12.2% in **Scarborough North**.
  - **Scarborough North** had among the highest % ED visits resulting in hospital admission of any sub-regions in the province, ranking 8<sup>th</sup> in the province.

- 3.3% of the patients who visited ED in Central East LHIN hospitals left without completing treatment in FY16/17, as compared to 3.9% for the province. Central East ranked 11<sup>th</sup> in the province in visits that left without completing treatment.
- 9.3% of ED visits to Central East LHIN hospitals were by patients who did not reside in Central East LHIN (inflow). This compares to 16.5% of ED visits by Central East LHIN residents that were accessed in other LHINs (outflow).

#### Top 10 Reasons for Emergency Department Visits by LHIN, 2016/17

Leading CACS groups, by LHIN of patient	Central East	
	#	% of total visits
(B128) Disease or Disorder Digestive System	69,606	10.5%
(B132) Disease or Disorder Skin & Breast	50,205	7.6%
(B112) Disease or Disorder Ear, Nose or Throat	46,557	7.0%
(B122) Other Disease or Disorder Cardiac System	40,681	6.1%
(B136) Disease or Disorder Musculoskeletal and Connective Tissue	40,530	6.1%
(B180) Contusion, Dislocation, Nerve & Other Soft Tissue Injury	40,295	6.1%
(B187) Follow-up Examination and Other Non Emergent Condition	34,740	5.2%
(B116) Disease or Disorder Respiratory System	32,594	4.9%
(B005) Other Condition with Acute Admission/Transfer	31,979	4.8%
(B188) Open Wound and Vascular Injury	27,175	4.1%

Measure—LHIN of Hospital	Central East		Ontario	
	#	LHIN % change 2013/14- 2016/17	#	Ontario % change 2013/14- 2016/17
Visits	610,686	4.7%	6,312,121	6.5%
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	106,789	9.7%	1,284,741	15.9%
III (urgent)	297,042	9.0%	2,876,687	9.6%
IV & V (less urgent/non urgent)	206,822	-2.8%	2,128,914	-2.0%
<b>% visits by CTAS level†</b>				
I & II (resuscitation/emergent)	17.5%		20.4%	
III (urgent)	48.6%		45.6%	
IV & V (less urgent/non urgent)	33.9%		33.7%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	17.3%		15.6%	
% of visits that were admitted	9.3%		9.8%	
% of visits that left without completing treatment	3.3%		3.9%	
<b>% Inflow visits</b>	9.3%			

Measure—LHIN of Patient	Central East		Ontario	
	#	LHIN % change 2013/14- 2016/17	#	Ontario % change 2013/14- 2016/17
Visits	663,002	6.4%	6,183,151	6.4%
ED visit rate/1,000 population	408.9	3.4%	442.2	3.0%
<b>Age-specific ED visit rates per 1,000 population</b>				
ED visit rate, age 0-17 years	403		429	
ED visit rate, age 18-44 years	369		411	
ED visit rate, age 45-64 years	357		388	
ED visit rate, age 65-79 years	489		516	
ED visit rate, age 80+ years	874		913	
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	122,955	11.4%	1,265,237	15.8%
III (urgent)	319,040	9.9%	2,825,385	9.4%
IV & V (less urgent/non urgent)	220,861	-0.4%	2,070,962	-2.2%
<b>% visits by CTAS level</b>				
I & II (resuscitation/emergent)	18.5%		20.5%	
III (urgent)	48.1%		45.7%	
IV & V (less urgent/non urgent)	33.3%		33.5%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	16.7%		15.8%	
% of visits that were admitted	9.8%		9.9%	
% of visits that left without completing treatment	3.3%		3.8%	
% Outflow visits	16.5%			



# ED Visit Utilization Summary, by sub-region of Patient Residence, 2016/17 Central East LHIN

Sub-Region of Patient Residence	Peterborough City and County	Haliburton County and City Of Kawartha Lakes	Northumberland County	Durham North East	Durham West	Scarborough North	Scarborough South	LHIN	Ontario
Visits	81,861	72,486	45,079	140,373	115,487	50,866	156,857	663,002	6,183,151
ED visit rate/1,000 population	579	766	598	439	328	267	350	408.9	442
% Outflow to other LHINs	4.0%	6.8%	6.6%	15.4%	17.2%	31.2%	25.8%	16.5%	
<b>Age-specific ED visit rates per 1,000 population</b>									
ED visit rate, age 0-17 years	529	894	571	397	313	340	366	403	429
ED visit rate, age 18-44 years	667	842	639	454	304	187	277	369	411
ED visit rate, age 45-64 years	470	591	453	365	289	230	345	357	388
ED visit rate, age 65-79 years	532	704	632	476	411	362	468	489	516
ED visit rate, age 80+ years	894	1233	1123	918	909	627	777	874	913
<b># visits by CTAS level</b>									
# CTAS Level I & II visits	19510	7858	9078	21289	20271	10879	34073	122,955	12715
# CTAS Level III visits	32599	30057	17559	63024	58233	29404	88167	319,040	20741
# CTAS Level IV & V visits	29728	34569	18442	56042	36960	10563	34558	220,861	13353
<b>% visits by CTAS level</b>									
I & II (resuscitation/emergent)	23.8%	10.8%	20.1%	15.2%	17.6%	21.4%	21.7%	18.5%	20.5%
III (urgent)	39.8%	41.5%	39.0%	44.9%	50.4%	57.8%	56.2%	48.1%	45.7%
IV & V (less urgent/non urgent)	36.3%	47.7%	40.9%	39.9%	32.0%	20.8%	22.0%	33.3%	33.5%
<b>Other visit characteristics</b>									
% of visits that arrived by ambulance	16.8%	12.8%	15.7%	17.1%	16.2%	17.5%	18.5%	16.7%	15.8%
% of visits that were admitted	10.4%	7.0%	8.9%	9.8%	9.2%	12.2%	10.9%	9.8%	9.9%
% of visits that left without completing treatment	3.6%	3.5%	4.0%	4.2%	3.0%	1.7%	2.6%	3.3%	3.8%

## Emergency Department Performance

- Emergency department (ED) volumes increased steadily from fiscal year 2013/14 (559,577 visits) to 2017/18 (577,211 visits) with Central East LHIN sites having a range from 7,539 to 101,205 visits in fiscal year 2017/18.
- Overall, the 90<sup>th</sup> percentile ambulance offload time in fiscal year 2017/18 (38 mins) increased since fiscal year 2013/14 (46 mins), with a range of 9 to 63 minutes across Central East LHIN sites in fiscal year 2017/18.
- The 90<sup>th</sup> percentile time to physician initial assessment (PIA) had remained consistent over time (three hours) from fiscal year 2013/14 to 2017/18, with the percent within two hour target for PIA decreasing slightly from fiscal year 2013/14 (79%) to fiscal 2017/18 (77%). In fiscal year 2017/18, the range of Central East LHIN sites for the 90<sup>th</sup> percentile time to PIA was two to four hours, while the range for percent within two hours to PIA was 59% to 90%.
- The 90<sup>th</sup> percentile consult request to arrival time decreased slightly from fiscal year 2013/14 (five hours) to fiscal year 2017/18 (four hours) with Central East LHIN sites having a range of one to eleven hours in fiscal year 2017/18. The percentage of consults within two hours from request increased from fiscal year 2013/14 (72%) to 2017/18 (75%), with Central East LHIN sites ranging from 67% to 98%.
- The 90<sup>th</sup> percentile time to disposition remained stable (seven hours) from fiscal year 2013/14 to fiscal year 2017/18, with Central East LHIN sites ranging from five to eight hours in fiscal year 2017/18.
- The 90<sup>th</sup> percentile ED length of stay increased slightly from fiscal year 2013/14 (seven hours) to 2017/18 (eight hours), with Central East LHIN sites ranging from five to ten hours in fiscal year 2017/18.
- Non-admitted low acuity ED volumes decreased overall between fiscal years 2013/14 (192,769) and 2017/18 (177,534).
- For non-admitted low acuity visits, the ED length of stay and 90<sup>th</sup> percentile time to disposition both remained stable (four hours for both) from fiscal year 2013/14 to fiscal year 2017/18, with Central East LHIN sites ranging from three to five hours for both measures in fiscal year 2017/18.
- The percent of non-admitted low acuity visits within target of four hours decreased slightly over time, from 91% in fiscal year 2013/14 to 87% in 2017/18. In fiscal year 2017/18, Central East LHIN sites ranged from 77% - 95%.
- The volumes of non-admitted high acuity ED visits increased steadily over time from fiscal year 2013/14 (313,636) to 2017/18 (343,407), with Central East LHIN sites ranging from 3,373 visits to 51,726 visits in fiscal year 2017/18.
- For non-admitted high acuity visits from fiscal year 2013/14 to fiscal year 2017/18, the 90<sup>th</sup> percentile time to disposition increased from six to seven hours (in fiscal year 2017/18, Central East LHIN sites ranged from five to eight hours), the ED length of stay remained the same (six hours, with Central East LHIN sites ranging from five to seven hours in fiscal year 2017/18) and the percentage within target of eight hours decreased from 96% to 95% (with Central East LHIN sites ranging from 93%-99% in fiscal year 2017/18) for non-admitted high acuity visits.
- The volumes of ED admissions had also increased steadily over time from fiscal year 2013/14 (53,121) to fiscal year 2017/18 (56,229). In fiscal year 2017/18, Central East LHIN sites ranged from 452 to 11,733 ED admissions. Across all years, the admission rates increased with acuity across all CTAS levels.
- For ED admissions, the 90<sup>th</sup> percentile time to disposition stayed relatively stable over time; it was 15 hours in both fiscal years 2013/14 and 2017/18, with Central East LHIN sites ranging from seven to 19 hours in fiscal year 2017/18.
- For admitted ED visits, the 90<sup>th</sup> percentile time to inpatient bed and ED length of stay both increased from fiscal year 2013/14 to fiscal year 2017/18; the time to inpatient bed from 24 to 28 hours, with Central East LHIN sites ranging from 18 to 54 hours in fiscal year 2017/18, and ED length of stay from 31 to 38 hours, with Central East LHIN sites ranging from 24 to 66 hours in fiscal year 2017/18. The percentage within target

of eight hours for ED admissions decreased from fiscal year 2013/14 (41%) to 2017/18 (29%), with Central East LHIN sites ranging from 15% to 44% in fiscal year 2017/18.

## Emergency department visits, Central East LHIN

Measure	Fiscal Year					Range across sites, FY 17/18
	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	
All emergency department visits						
ED Volumes (All)	559,577	572,293	580,066	582,972	577,211	7,539 - 101,205
Ambulance Offload Time - 90th Percentile (mins)	38	45	44	43	46	9 - 63
Time to PIA - 90th percentile	3	3	3	3	3	2 - 4
% with Time to PIA <= 2 Hours	79%	76%	79%	79%	77%	59% - 90%
Consult Request to Arrival - 90th Percentile	5	4	4	4	4	1- 11
% of Consults with Consult Request to Arrival <= 2 Hrs	72%	74%	76%	76%	75%	67% - 98%
Time to Disposition (All) - 90th Percentile	7	7	7	7	7	5 - 8
ED LOS - 90th Percentile	7	7	7	8	8	5 - 10
Non-admitted low acuity ED visits						
ED Volumes - Non-Admitted Low Acuity	192,769	186,112	187,597	185,170	177,534	3,713 - 37,745
% Within Target of 4 Hrs - Non-Admitted Low Acuity	91%	90%	91%	90%	87%	77% - 95%
Time to Disposition for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	4	3 - 5
ED LOS for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	4	3 - 5
Non-admitted high acuity ED visits						
ED Volumes - Non-Admitted High Acuity	313,636	330,874	335,868	341,290	343,407	3,373 - 51,726
% Within Target of 8 Hrs - Non-Admitted High Acuity	96%	96%	96%	96%	95%	93% - 99%
Time to Disposition for Non-Admitted High Acuity - 90th Percentile	6	7	6	6	7	5 - 8
ED LOS for Non-Admitted High Acuity - 90th Percentile	6	6	6	6	6	5 - 7
Admitted ED visits						
ED Volumes - Admitted	53,121	55,224	56,524	56,483	56,229	452 - 11,733
Admission Rate - CTAS 1	52%	54%	53%	51%	48%	13% - 62%
Admission Rate - CTAS 2	23%	22%	23%	22%	21%	16% - 26%
Admission Rate - CTAS 3	10%	10%	10%	10%	10%	8% - 14%
Admission Rate - CTAS 4	1%	2%	2%	2%	2%	1% - 4%
Admission Rate - CTAS 5	1%	1%	1%	1%	1%	0% - 2%
Time to Disposition for Admitted - 90th Percentile	15	15	14	14	15	7 - 19
ED LOS for Admitted - 90th Percentile	31	33	32	35	38	24 - 66
% Within Target of 8 Hrs - Admitted	41%	38%	37%	31%	29%	15% - 44%
Time to Inpatient Bed - 90th Percentile	24	26	25	27	28	18 - 54

## Acute Care

### Acute Care Utilization by Residents of the Central East LHIN

#### Acute Separations

- In 2016/17, there were 114,283 acute separations (discharges), 602,177 acute days, and 714,261 total days (including acute and alternate level of care days) for Central East LHIN residents.
- The acute separation rate for Central East LHIN residents was 71 separations per 1,000 residents in 2016/17 but varied substantially by sub-region of patient residence.
  - Rates were the lowest for residents of the **Scarborough North** sub-region and highest for residents of **Peterborough City and County**.
- From 2013/14 to 2016/17, the overall acute separation rate for Central East LHIN residents increased by 4.8%.
  - **Scarborough North** sub-region was ranked among the lowest 8 Ontario sub-regions for the rate of acute separations per 1,000 residents – with rates lower than Ontario.
  - **Scarborough South** had the 5<sup>th</sup> highest volumes of separations by sub-region of patient (28,947)

#### Acute Days

- The rate of acute days for Central East LHIN residents was 317 acute days per 1,000 residents in 2016/17. Rates were the lowest for residents of the **Durham West** sub-region (297) and highest for **Peterborough City and County** (534) in 2016/17.
  - Among sub-regions, residents of **Durham West** were among the lowest ranking Ontario sub-regions for the rate of acute days per 1,000 residents – with rates much lower than Ontario

#### Mean Length of Stay

- The mean total length of stay (including acute days and days waiting for an alternate level of care) for Central East LHIN residents was 6.2 days, while the mean acute length of stay was 5.3 days in 2016/17.
  - Total length of stay varied among Central East LHIN sub-regions, with **Peterborough City and County** among the highest 8 ranking Ontario sub-regions – with values higher than Ontario.

#### HIG Weight

- The Ontario HBAM Inpatient Grouper (HIG) (similar to CMG+) aggregates acute care separations with similar resource use and clinical characteristics based on most responsible diagnosis and/or principal intervention. The HIG weight is a relative cost value that reflects the resources consumed during each acute care stay. The mean HIG weight for Central East LHIN residents increased from 1.48 2014/15 to 1.56 in 2016/17 – a change of 5.4% - and slightly above the provincial value (1.55).
- The top 3 HIGs accounting for the highest proportion of acute care days for Central East LHIN residents in 2016/17 were: 196-heart failure without coronary angiogram, 810-palliative care, and 138-viral/unspecified pneumonia.

### Acute Care Hospital Utilization (Excluding ALC) LHIN of Patient, Central East LHIN, 2016/17

	Central East LHIN Residents	Ontario Residents*	Rank among LHINs	Range across CE sub-regions
<b>Acute Care Measures</b>				
Total Population	1,621,347	13,982,984		75,411 – 447,806
Acute Separations	114,283	1,028,979		7,128 – 28,947
Acute Separation Rate per 1,000 Population	71	74		57 - 96
Acute Days	602,177	5,455,693		36,425 – 157,175
Acute Days Rate per 1,000 Population	371	390		297 – 534
Total Days	714,261	6,477,528		41,301 – 187,136
Total Days Rate per 1,000 Population	441	463		326 – 731
Mean Acute LOS	5.3	5.3		5.0 – 5.6
Mean Total LOS	6.2	6.3		5.5 – 7.6
Mean HIG Weight	1.56	1.55		—
<b>Leading HIGs (Acute Care Days)†</b>				
(196) Heart Failure w/o Coronary Angiogram	20,194	175,995		1,263 – 5,703
(810) Palliative Care	18,212	110,197		1,049 – 6,492
(138) Viral/Unspecified Pneumonia	13,293	119,810		881 – 3,189

\* Ontario residents exclude Out-of-province

† Leading HIGs include Out-of-province for Ontario Values

### Acute Care Utilization for Central East LHIN Facilities

- There were 92,077 acute separations, 470,405 acute days, and 576,445 total days at Central East LHIN hospitals in 2016/17.

### Separations

- Separations increased by 3.1% between 2013/14 and 2016/17. During this same period, for Ontario hospitals overall, separations increased by 3.8%.

### Acute Days

- Acute days increased by 3.2% between 2013/14 and 2016/17. Acute days increased by 2.2%, for all Ontario hospitals overall, during this same period.
- Mean acute length of stay for 2016/17 at hospitals in the Central East LHIN was 5.1 days. This is lower than the provincial result of 5.3 days.

### Total Days

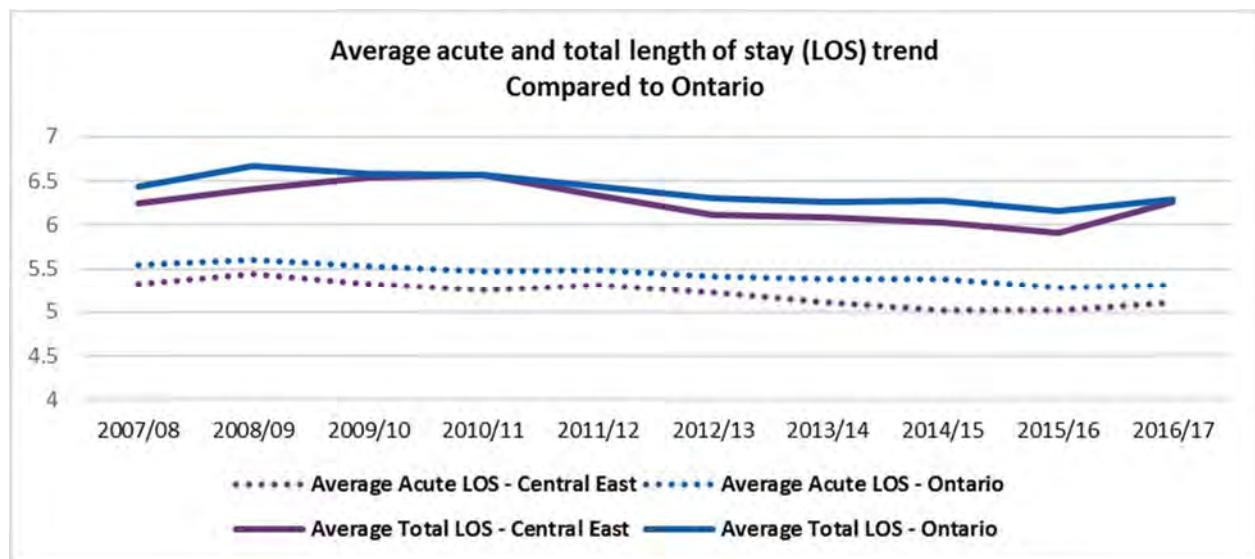
- Total days increased by 6.1% between 2013/14 and 2016/17. Overall Ontario hospitals had an increase of 4.2% of total days during this period.
- Mean total length of stay for this LHIN was 6.3 days. This is similar to the provincial result of 6.3 days.

### HBAM Group (HIG) Weight

- Mean HIG weight for Central East LHIN hospitals in 2016/17 of 1.42 was lower than the provincial value of 1.55.

### Acute care hospital utilization, Central East LHIN, 2016/17

Measure	Central East		Comments	LHIN % change	Range within LHINs
	LHIN	Ontario		2013/14 - 2016/17	
Acute separations	92,077	1,041,308		3.1%	26,295 - 159,315
Total days	576,445	6,542,800		6.1%	193,259 - 1,050,391
Mean total LOS	6.3	6.3			5.0 - 7.3
Acute days	470,405	5,518,912		3.2%	142,875 - 917,167
Mean acute LOS	5.1	5.3			4.5 - 5.8
Mean HIG weight	1.42	1.55			1.23 - 1.94



## Acute Care Inflow/Outflow

### Inflow

- 10.1% of hospital separations from Central East LHIN hospitals were by non- Central East LHIN residents

### Outflow

- 27.6% of separations for Central East LHIN residents were from hospitals outside Central East LHIN
  - By sub-region, **Scarborough North** had the 5<sup>th</sup> highest proportion of outflow to other LHINs (41.0%) and **Scarborough South** the 8<sup>th</sup> highest (36.2%)

### Inflow - Outflow, Central East LHIN, 2016/17

Measure	Central East LHIN	Ontario Hospitals	Comments	Range across CE sub-regions
Acute separations, LHIN of hospital	92,078	1,041,322		5,912 – 18,466
Acute separations, LHIN of patient	114,284	1,041,322	2 <sup>nd</sup> highest	7,128 – 28,947
% inflow	10.1%			NA
% outflow	27.6%			12.5% - 41.0%



## Post-Acute Care

### Inpatient Rehabilitation Utilization

#### Rehabilitation Admissions

- The number of total rehabilitation admissions at the LHIN hospitals, including both general admissions and special admissions, was 2,861 in FY 16/17, a decrease of 2.7% from FY 13/14.
  - The number of general rehabilitation admissions was 2,861 in FY 16/17, a decrease of 2.7% from FY 13/14.
- The number of total rehabilitation admissions of the LHIN residents, was 4,670 in FY 16/17, an increase of 3.8% from FY 13/14.

#### Active Cases and Discharges

- In FY 16/17, the number of active cases was 3,991 while the number of discharges was 2,804.

#### Inpatient Days

- The number of total inpatient days was 69,951 in FY 16/17.
- The mean length of stay at the LHIN hospitals was 23.5 days.
- By sub-region of patient residence:
  - **Peterborough City and County** residents had the longest length of stay at 25.2 days.
  - **Haliburton County and City Of Kawartha Lakes** residents had the shortest length of stay at 21.3 days.

#### Admission Rate

- The number of admissions per 100,000 adults (age 18+) was 341.6 in FY 16/17, an increase of 3.0% from FY 13/14.
  - Age group 18-44 years had the lowest admission rate, 28.3 per 100,000 population.
  - Age group 80+ years had the highest admission rate, 2,780.7 per 100,000 population.
- By sub-region of patient residence:
  - **Northumberland County** residents had the highest admission rate at 834.5.
  - **Durham West** residents had the lowest admission rate at 265.2.

#### Active Case Rate

- The number of active cases per 1,000 population age 18+ was 444.1.

#### Discharge Rate

- The number of discharges per 1,000 population age 18+ was 348.1.

#### Leading Rehabilitation Group

- The 5 leading rehabilitation groups that contributed to the total admissions in FY 16/17 were:
  - Other disabilities accounted for 1,332 admissions or 28.5% of the total admissions.
  - Fracture of lower extremity accounted for 806 admissions or 17.3 % of the total admissions.
  - Stroke accounted for 670 admissions or 14.3% of the total admissions.
  - Replacement of lower extremity accounted for 402 admissions or 8.6% of the total admissions.
  - Other orthopaedic accounted for 280 admissions or 6.0% of the total admissions.

#### Outflow

- Hospitals outside the LHIN accounted for 43.3% of the total rehabilitation admissions of the LHIN residents
- By sub-region of patient residence:

- **Scarborough North** residents had the highest rate of admission to hospitals outside the LHIN at 94.0%.
- **Northumberland County** residents had the lowest rate of admission to hospitals outside the LHIN at 7.8%.

#### Inflow

- 7.4% of the rehabilitation admissions at the hospitals in the LHIN were residents from outside the Central East LHIN.

Rehab Admissions, Active Cases, Discharges and Days*	LHIN	Ontario	Ranking Among LHINs**	% Change 2013/14-2016/17	Range across sub-region
<b>LHIN of hospital</b>					
General admissions	2,861	28,691		-2.7%	
Special admissions		4,444			
Total admissions	2,861	33,135		-2.7%	
% Inflow inpatient rehab admissions	7.4%				
Active Cases	3,991	43,329			
Discharges	2,804	33,133			
Total Days (discharged cases only)	65,951	839,228			
Mean Length of Stay (discharged cases only)	23.5	25.3			
<b>LHIN of patient</b>					
Total population age 18+	1,320,945	11,287,810		3.7%	
Total admissions	4,670	33,016		3.8%	353-1,182
Admissions/100,000 population age 18+	353.5	292.5	2 <sup>nd</sup> highest	0.0%	265.2-834.5
Admissions/100,000 population age 18-44 years	28.3	30.4			14.2-55.0
Admissions/100,000 population age 45-64 years	177.8	150.9	4 <sup>th</sup> highest		129.7-231.3
Admissions/100,000 population age 65-79 years	858.2	689.3	3 <sup>rd</sup> highest		679.5-1,169.1
Admissions/100,000 population age 80+ years	2,780.7	2,311.8	4 <sup>th</sup> highest		2,116.7-6,128.8
% Outflow inpatient rehabilitation admissions	43.3%				7.8%-94.0%
Active cases per 1,000 population age 18+	444.1	382.3	4 <sup>th</sup> highest		315.0-1,005.8
Discharges per 1,000 population age 18+	348.1	292.5	2 <sup>nd</sup> highest		252.4-826.6
Mean Length of Stay (discharged cases only)	23.9	25.3	3 <sup>rd</sup> lowest		21.3-25.2

	Peterborough City and County	Haliburton County and City Of Kawartha Lakes	Northumberland County	Durham North East	Durham West	Scarborough North	Scarborough South
Measure							
Rehab Admissions	498	353	526	918	724	469	1,182
Rehab Admission Rate per 100,000 Population	423.7	439.2	834.5	356.6	265.2	288.4	322.1
Rehab Active Cases	642	442	634	1,162	860	577	1,549
Rehab Active Case Rate per 100,000 Population	546.2	549.9	1,005.8	451.3	315.0	354.8	422.2
Rehab Discharges	494	352	521	875	689	485	1,182
Rehab Discharge Rate per 100,000 Population	420.3	438.0	826.6	339.9	252.4	298.2	322.1
Total Inpatient Days (discharged cases only)	12,450	7,495	12,106	20,644	16,385	11,492	29,321
Mean LOS (discharged cases only)	25.2	21.3	23.2	23.6	23.8	23.7	24.8
<b>Age specific admission rates per 100,000 population</b>							
18-44 years	26.6	32.7	55.0	40.5	20.6	14.2	29.2
45-64 years	193.4	141.7	231.3	202.7	129.7	133.4	211.8
65-79 years	768.0	726.2	1,169.1	811.9	923.9	679.5	946.2
80+ years	2,625.9	2,636.2	6,128.8	2,736.4	2,767.4	2,116.7	2,472.1

Rehab Admissions, by Leading Rehabilitation Groups*	LHIN	% of Total Rehab Admission
<b>LHIN of Patient</b>		
18-Other disabilities	1,332	28.5%
10-Fracture of lower extremity	806	17.3%
01-Stroke	670	14.3%
11-Replacement of lower extremity	402	8.6%
12-Other orthopaedic	280	6.0%
03-Non-traumatic brain injury		
13-Cardiac		
06-Non-traumatic spinal cord injury		
07-Amputation		
02-Traumatic brain injury		
16-Major multiple trauma		

\* FY 16/17 data unless noted otherwise.

\*\* Top or bottom 4 ranking in the province, compared to other LHINs.

## Complex Continuing Care

### Complex Continuing Care

- In 2016/17, there were 1,785 CCC active cases treated in Central East LHIN hospitals and residents from outside the LHIN accounted for 2.4% of these active cases. In 2016/17, there were 1,494 admissions and 1,504 discharges from Central East LHIN hospital CCC units. Central East LHIN hospitals had a mean LOS of 55.8 days - ranking 7th across LHINs.
- There were reductions in the number of active cases (-9.1%), admissions (-11.4%), discharges (-11.2%) and total days (-9%) for Central East LHIN hospital CCC units between 2013/14 and 2016/17.
- During the period, the mean length of stay in CCC beds increased from 54.5 days to 55.8 days.
- In 2016/17, there were 2,987 CCC active cases for Central East LHIN residents, and 41.6% of these cases were treated in hospitals outside the LHIN.
- The active case rate for Central East LHIN residents was lower than the provincial value.

### Utilization of Complex Continuing Care, Central East LHIN and Ontario, 2016/17

Measure	Central East LHIN		Ontario	
	LHIN	% Change	Provincial	% Change
	Values	2013/14-2016/17	Value	2013/14-2016/17
<b>LHIN of Hospital</b>				
Active Cases	1,785	-9.1%	29,466	-0.1%
% Inflow	2.4%			
Admissions	1,494	-11.4%	24,108	0.5%
Discharges	1,504	-11.2%	23,995	-0.2%
Total Days	83,931	-9.0%	1,855,227	-2.0%
Mean LOS	55.8		77.3	
<b>LHIN of Patient</b>				
Active Cases	2,987	-7.7%	29,366	0.3%
Active cases/100,000 population	184.2	-10.3%	210.0	-2.9%
% Outflow	41.6%			
Admission	2,471	-11.1%	24,022	0.8%
Admissions/100,000 population	152.4		171.8	
Discharges	2,471	-10.3%	23,908	0.1%
Discharges/100,000 population	152.4		171.0	
Total Days	167,499	4.5%	1,850,599	-1.1%
Mean LOS	67.8		77.4	

## Alternate Level of Care

### LHIN overview

Central East LHIN						
Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Rank
Acute ALC Days (closed cases)	87,680	93,046	83,243	106,038	NV	11
% ALC Days (Acute Inpatient closed cases)	16.1%	16.8%	15.2%	18.4%	NV	11
Volume of Closed Cases	4,365	4,441	4,407	5,216	5,682	11
Volume of Closed Cases - Long Term Care	1,703	1,449	1,165	1,276	1,465	
Volume of Closed Cases - Palliative Care	327	348	309	377	417	
Volume of Closed Cases – Rehabilitation	1,211	1,308	1,494	1,850	1,874	
90 <sup>th</sup> Percentile Wait of Closed Cases (Days)	84	90	83	78	87	14
90 <sup>th</sup> Percentile Wait of Closed Cases - Long Term Care	156	195	205	239	243	
90 <sup>th</sup> Percentile Wait of Closed Cases - Palliative Care	24	24	24	29	27	
90 <sup>th</sup> Percentile Wait of Closed Cases - Rehabilitation	15	14	13	15	14	
Volume of Open Cases on the last day of the year	439	419	482	560	509	13
Volume of Open Cases - Complex Continuing Care	17	16	28	24	23	
Volume of Open Cases - Long Term Care	323	310	297	368	345	
Volume of Open Cases - Supervised or Assisted Living	27	29	43	38	42	
90 <sup>th</sup> Percentile Wait of Open Cases	356	371	426	337	401	9
90 <sup>th</sup> Percentile Wait of Open Cases - Complex Continuing Care	55	412	400	252	563	
90 <sup>th</sup> Percentile Wait of Open Cases - Long Term Care	356	384	492	444	444	
90 <sup>th</sup> Percentile Wait of Open Cases - Supervised or Assisted Living	1,292	1,007	378	584	327	
Throughput Ratio (discharged case/newly added cases)	1.00	1.01	0.99	0.98	0.99	10
% of Cases Designated ALC Within 1 Day	11.9%	10.8%	9.9%	8.9%	10.0%	11
% of Cases Designated ALC Within 2 Days	14.8%	14.6%	13.5%	12.5%	13.9%	11
% of Cases Designated ALC Within 3 Days	18.3%	19.6%	18.9%	17.8%	19.4%	10
ALC Rate - All Inpatient Services	17.5%	18.0%	17.7%	20.9%	22.7%	12
ALC Rate - Acute Inpatient Services	14.9%	16.3%	15.5%	19.7%	22.5%	12
ALC Rate - Post-Acute Inpatient Services	21.8%	20.9%	21.4%	23.2%	23.2%	12
ALC Rate - CCC Inpatient Services	52.6%	52.2%	48.5%	48.7%	49.7%	13
ALC Rate - Rehab Inpatient Services	6.6%	9.0%	7.6%	9.4%	11.2%	10
ALC Rate - Mental Health Inpatient Services	12.1%	9.9%	13.1%	14.2%	12.8%	10

## Closed ALC Cases

### Acute ALC Days

- Acute ALC Days increased by 18,358 from FY 13/14 to FY 16/17

### % ALC Days (Acute Inpatient)

- % ALC Days increased from 16.1% in FY 13/14 to 18.4% in FY 16/17

### Volume of Closed Cases

- The volume of closed cases for all inpatient services increased by 30% from 4,365 in FY 13/14 to 5,682 in FY 17/18.
  - Long-term Care – number of closed cases decreased by 14% from 1,703 in FY 13/14 to 1,465 in FY 17/18
  - Palliative Care – number of closed cases increased by 28% from 327 in FY 13/14 to 417 in FY 17/18
  - Rehabilitation - number of closed cases increased by 55% from 1,211 in FY 13/14 to 1,874 in FY 17/18

### 90<sup>th</sup> Percentile Wait of Closed Cases

- The wait time for closed cases (all inpatients services and all discharge destinations) increased by 4% from 84 days in FY 13/14 to 87 days in FY 17/18. **Longest** across LHINs at the end of FY 17/18.
  - Long-term Care – wait time increased by 56% from 156 days in FY 13/14 to 243 days in FY 17/18.
  - Palliative Care - wait time increased by 13% from 24 days in FY 13/14 to 27 days in FY 17/18.
  - Rehabilitation – wait time decreased by 7% from 15 days in FY 13/14 to 14 days in FY 17/18.

### *Wait Time by Sub-Region of Patient Residence*

- **Peterborough City and County** residents had the longest wait in the LHIN at 223 days; **Scarborough North** had the shortest at 42 days.
- **Peterborough City and County** is 2<sup>nd</sup> highest in province
- **Durham West** is 6<sup>th</sup> highest in province

## Open ALC Cases

### Volume of Open Cases

- The number of ALC waitlist entries open across all inpatient bed types increased by 16% from 439 at the end of FY 13/14 to 509 at the end of FY 17/18.
  - Complex Continuing Care – number of open cases increased by 35% from 17 at the end of FY 13/14 to 23 at the end of FY 17/18
  - Long-term Care – number of open cases increased by 7% from 323 at the end of FY 13/14 to 345 at the end of FY 17/18
  - Supervised or Assisted Living - number of open cases increased by 56% from 27 at the end of FY 13/14 to 42 at the end of FY 17/18

### 90<sup>th</sup> Percentile Wait of Open Cases

- The wait time for open cases (all inpatients services and all discharge destinations) increased by 13% from 356 days at the end of FY 13/14 to 401 days at the end of FY 17/18. Patients awaiting discharge from Central East LHIN hospitals had waited 314 days longer than patients who were discharged in 17/18, and had waited the 6<sup>th</sup> longest across LHINs at the end of FY 17/18.
  - Complex Continuing Care – wait time increased by 924% from 55 days at the end of FY 13/14 to 563 days at the end of FY 17/18.

- Long-term Care – wait time increased by 25% from 356 days at the end of FY 13/14 to 444 days at the end of FY 17/18.
- Supervised or Assisted Living - wait time decreased by 75% from 1,292 days at the end of FY 13/14 to 327 days at the end of FY 17/18.

#### Wait Time by Sub-Region of Patient Residence

- **Scarborough North** residents had the longest wait in the LHIN at 613 days; **Durham North East** had the shortest at 162 days
- **Scarborough North** is the 8<sup>th</sup> highest in province

#### ALC Wait Time (Days) by Sub-Region of Patient Residence

Central East LHIN					
Closed & Open Cases - All Discharge Destinations by Sub-Region	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
<i>90<sup>th</sup> Percentile Wait of Closed Cases</i>					
901 PETERBOROUGH CITY AND COUNTY	196	168	160	184	223
902 HALIBURTON COUNTY AND CITY OF KAWARTHA LAKES	81	67	75	66	60
903 NORTHUMBERLAND COUNTY	49	44	53	52	60
904 DURHAM NORTH EAST	65	80	43	49	74
905 DURHAM WEST	79	124	101	85	99
906 SCARBOROUGH NORTH	45	41	50	49	42
907 SCARBOROUGH SOUTH	58	62	57	69	55
<i>90<sup>th</sup> Percentile Wait of Open Cases</i>					
901 PETERBOROUGH CITY AND COUNTY	482	340	534	469	344
902 HALIBURTON COUNTY AND CITY OF KAWARTHA LAKES	206	184	284	254	279
903 NORTHUMBERLAND COUNTY	113	222	378	276	325
904 DURHAM NORTH EAST	290	425	423	336	162
905 DURHAM WEST	532	588	619	584	478
906 SCARBOROUGH NORTH	501	292	284	279	613
907 SCARBOROUGH SOUTH	182	302	269	303	485

#### Hospital Processes and Capacity

##### ALC Throughput Ratio

- In the Central East LHIN, the throughput ratio decreased from 1.00 in FY 13/14 to 0.99 in FY 17/18.

##### Percentage of Patients Designated ALC within 1, 2 & 3 Days of Admission

- The percentage of patients that have been designated as requiring an alternate level of care within one and two days of admission to hospital decreased over the last five years in the Central East LHIN from FY 13/14 to FY 17/18. However, admission with 3 day increased by 1.1%. All 3 measures are above the provincial value and are amongst the highest rates in the province (4<sup>th</sup>, 4<sup>th</sup>, 5<sup>th</sup> respectively).



### ALC Rate (All Inpatient Services)

- The annual ALC rate for all inpatient beds increased from 17.5% in FY 13/14 to 22.7% in FY 17/18.
- In FY 17/18, the Central East LHIN was above the provincial rate of 15.4%.

#### Acute I/P Services

- Central East LHIN increased over the past 5 fiscal years (14.9% FY 13/14; 22.5% FY 17/18) and is now 6.3% above the provincial value.

#### Post-Acute I/P Services

- Central East LHIN increased over the past 5 fiscal years (21.8% FY 13/14; 23.2% FY 17/18). Central East LHIN is above the provincial Post-acute ALC rate (3<sup>rd</sup> highest in ON).
  - CCC Inpatient Services – 2<sup>nd</sup> across LHINs for FY 17/18. Rate decreased from 52.6% in FY 13/14 to 49.7% in FY 17/18.
  - Mental Health Inpatient Services – 5<sup>th</sup> across LHINs for FY 17/18. Rate increased from 12.1% in FY 13/14 to 12.8% in FY 17/18.
  - Rehab Inpatient Services – 5<sup>th</sup> across LHINs for FY 17/18. Rate increased from 6.6% in FY 13/14 to 11.2% in FY 17/18.

### LHIN/Facility/Site – Annual ALC Rate

Province/LHIN/Facility/Site			Annual ALC Rate					% Change FY 13/14 to FY 17/18
			FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	
Provincial			13.8%	13.7%	13.9%	14.8%	15.4%	
LHIN	9	Central East	17.5%	18.0%	17.7%	20.9%	22.7%	5.2%
Facility	624	CAMPBELLFORD MEMORIAL HOSPITAL	25.8%	26.6%	24.8%	28.9%	25.8%	0.0%
Facility	707	ROSS MEMORIAL HOSPITAL	25.8%	27.1%	28.8%	27.1%	28.9%	3.1%
Facility	771	PETERBOROUGH REGIONAL HEALTH CENTRE	17.1%	19.3%	21.6%	20.1%	20.7%	3.6%
Facility	938	HALIBURTON HIGHLANDS HEALTH SERVICES	26.8%	44.5%	27.9%	45.1%	40.7%	13.9%
Facility	940	NORTHUMBERLAND HILLS HOSPITAL	11.1%	13.7%	11.4%	20.2%	29.5%	18.4%
Facility	952	LAKERIDGE HEALTH CORPORATION	23.5%	24.1%	15.7%	18.7%	23.7%	0.3%
Site	4170	LAKERIDGE -BOWMANVILLE	43.0%	45.1%	29.1%	40.9%	37.7%	(-5.3%)
Site	4171	LAKERIDGE -OSHAWA SITE	19.7%	20.3%	13.5%	14.8%	21.5%	1.8%
Site	4172	LAKERIDGE -PORT PERRY	37.1%	35.6%	18.3%	27.4%	30.8%	(-6.2%)
Facility	954	ROUGE VALLEY HEALTH SYSTEM	15.2%	12.0%	13.9%	18.5%	18.5%	3.3%
Site	4139	ROUGE VALLEY HEALTH SYSTEM-CENTENARY	12.5%	9.3%	11.9%	16.7%	13.3%	0.8%
Site	4140	ROUGE VALLEY HEALTH SYSTEM-AJAX SITE	19.8%	16.5%	17.0%	21.2%	25.5%	5.7%
Facility	960	SCARBOROUGH HOSPITAL (THE)	12.1%	15.4%	17.3%	25.8%	27.1%	14.9%
Site	3975	SCARBOROUGH -SCAR.GEN.SITE	12.1%	15.7%	17.8%	28.0%	32.3%	20.2%
Site	3984	SCARBOROUGH -GRACE SITE	12.1%	15.1%	16.5%	23.0%	18.5%	6.4%
Facility	969	ONTARIO SHORES CENTRE FOR MENTAL HEALTH SCIENCES	15.6%	13.2%	18.3%	18.3%	16.7%	1.1%

- In FY 17/18, Haliburton Highlands Health Services had the highest ALC Rate across the Central East LHIN at the facility level, with Lakeridge Bowmanville having the highest site level rate.
- Scarborough General had the greatest increase in ALC Rate since FY 13/14 (+20.2%)
- Lakeridge – Port Perry had the greatest decrease in ALC Rate since FY 13/14 (-6.2%).

## Long-Term Care

### Long-Term Care Bed Supply

- 68 LTC homes are licensed and approved to operate in Central East LHIN.
- As of February 2018, there were a total of 9,682 Long-Term Care beds in operation in Central East LHIN.
  - With the exception of 157 beds designated as Short-stay, Respite or Convalescent care beds, almost all of the LTC beds are designated Long-Stay Beds or Interim beds.

### Long-Term Care Waitlist & Placements

- Of the 2,737 patients placed in Central East LHIN Long-Term Care Homes in FY 2017/18, approximately 68% were from the community while only 23% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- Of the 2,583 residents of Central East LHIN placed in Ontario Long-Term Care Homes in FY 2017/18, approximately 68% were from the community while only 23% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- The median time to placement in a Central East LHIN long-term care home, as of March 2018, was 263 days.
  - Half of community patients waited less than 293 days for a placement in a Central East LHIN LTC home while half of hospital patients waited less than 185 days for placement in a Central East LHIN LTC Home.
- The median time to placement for a Central East LHIN resident to be placed in a long-term care home, as of March 2018, was 275 days.
  - Half of community patients from Central East LHIN waited less than 302 days for a placement in an Ontario LTC home while half of hospital patients waited less than 193 days for placement.
- As of March 2018, there were 6,649 patients on the waitlist waiting for placement in a Long-Term Care home in Central East LHIN (not including patients awaiting transfer from one LTC home to another).
- As of March 2018, there were 6,362 residents of Central East LHIN on the waitlist waiting for placement in an Ontario Long-Term Care home (not including patients awaiting transfer from one LTC home to another).

### Long-Stay Demand

- As of March 2018, there were 9,383 long-stay residents occupying LTC Homes within Central East LHIN.
- When adjusted for the size of the older population, Central East LHIN has approximately 80 Long-Stay beds per 1,000 people aged 75+.
- The gap between the demand and supply of Long-Term Care Homes in Central East LHIN reflects a shortage of approximately 6,507 Long-Stay beds – the largest gap among all LHINs.
  - Comparing within Central East LHIN, the **Scarborough North** sub-region has the highest shortfall of Long-Stay beds among all Ontario sub-regions at 1,987 beds demanded over supply. To put this figure into context, 8 of the 14 LHINs had less of a shortage in Long-Stay beds compared to the **Scarborough North** sub-region.

### Selected Characteristics of Long-Term Care Home Residents

- In Central East LHIN, 84% of Residents were over the age of 75 with 58% being over the age of 85.
- In 2016/17, the mean age of residents of LTC Homes in Central East LHIN was 84.
- The mean length of stay for residents of LTC Homes in Central East LHIN was 1,009 days (about 2.8 years) with half of residents remaining in LTC homes for less than 625 days.
- Nearly 81% of residents need extensive help with daily activities such as getting out of bed, eating, or toileting; 27% are highly or entirely dependent on staff.
- 82% have some form of cognitive impairment; 28% are severely impaired.

- 44% exhibit some level of aggressive behaviour related to their cognitive impairment or mental health condition with 6% exhibiting very severe aggressive behavior.
- 65% of active LTC Residents in Central East LHIN LTC Homes have been identified as having some form of dementia.

### Long-term care home supply, waitlists and placements, and resident characteristics, by LHIN sub-region

	Central East		0901		0902		0903		0904		0905		0906		0907	
			Peterborough City and County		Haliburton County and City Of Kawartha Lakes		Northumberland County		Durham North East		Durham West		Scarborough North		Scarborough South	
Long-term care bed supply in the sub-region (February 2018)	Rate per 1,000 population age 75+		Rate per 1,000 population age 75+		Rate per 1,000 population age 75+		Rate per 1,000 population age 75+		Rate per 1,000 population age 75+		Rate per 1,000 population age 75+		Rate per 1,000 population age 75+		Rate per 1,000 population age 75+	
	#		#		#		#		#		#		#		#	
Long-term care homes	68		8		11		8		12		7		5		17	
Long-stay beds	9,525	80.4	1,090	77.3	889	83.6	661	79.7	1,722	77.8	1,020	61.5	1,057	61.7	3,086	104.3
Short-stay, respite & convalescent care beds	157	1.3	21	1.5	3	0.3	6	0.7	48	2.2	1	0.1	14	0.8	64	2.2
Total beds in operation	9,682	81.7	1,111	78.8	892	83.9	667	80.4	1,770	80.0	1,021	61.6	1,071	62.5	3,150	106.5

*†The denominator for the rate calculation refers to the number of sub-region residents age 75+; however the LTC homes/beds may serve individuals from other sub-regions. Therefore, rates should be interpreted with caution.*

	Central East		0901		0902		0903		0904		0905		0906		0907	
			Peterborough City and County		Haliburton County and City Of Kawartha Lakes		Northumberland County		Durham North East		Durham West		Scarborough North		Scarborough South	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>By sub-region of long-term care home (patients awaiting placement in a home within the sub-region)</b>																
Long-stay waitlist without transfer patients*	6,649	56.1	866	61.4	396	37.2	377	45.4	1238	56.0	1084	65.4	1996	116.5	692	23.4
Placements**																
From community	1,862	68.0%	238	70.0%	209	67.6%	151	66.8%	335	67.7%	212	64.4%	207	88.8%	510	63.4%
From hospital	620	22.7%	81	23.8%	88	28.5%	61	27.0%	100	20.2%	82	24.9%	20	8.6%	188	23.4%
Total	2,737		340		309		226		495		329		233		805	
Median time to placement (days)																
From community	293		457.5		219.0		379.0		307.0		359.0		629.0		170.0	
From hospital	185		336.0		195.0		139.0		257.0		228.0		439.0		115.0	
Total	263		434.0		203.0		304.5		309.0		315.0		568.0		147.0	
<b>By sub-region of patient (patients who reside within the sub-region and are awaiting placement in any home)</b>																
Long-stay waitlist without transfer patients*	6,362	53.7	841	59.6	442	41.6	374	45.1	1318	59.6	963	58.1	1441	84.1	983	33.2
Placements**																
From community	1,765	68.3%	228	64.0%	182	67.4%	124	73.8%	374	66.5%	266	63.5%	233	80.6%	358	69.0%
From hospital	590	22.8%	105	29.5%	80	29.6%	35	20.8%	116	20.6%	112	26.7%	42	14.5%	100	19.3%
Total	2,583		356		270		168		562		419		289		519	

	Central East		0901		0902		0903		0904		0905		0906		0907	
			Peterborough City and County		Haliburton County and City Of Kawartha Lakes		Northumberland County		Durham North East		Durham West		Scarborough North		Scarborough South	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Median time to placement (days)</b>																
From community	302		458.5		215.0		387.5		325.5		267.0		486.0		187.0	
From hospital	193		282.0		199.5		132.0		188.0		176.0		172.5		104.0	
Total	275		389.5		204.0		340.5		318.0		241.0		375.0		164.0	

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents

Placements from other locations (correctional facilities, homeless, out-of-province) are not shown but are included in the total placement values.

Long-stay demand (February / March 2018) for LTC homes in the sub-region	9. CE		9. CE		9. CE		9. CE		9. CE		9. CE		9. CE		9. CE	
	Central East		0901		0902		0903		0904		0905		0906		0907	
			Peterborough City and County		Haliburton County and City Of Kawartha Lakes		Northumberland County		Durham North East		Durham West		Scarborough North		Scarborough South	
	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-stay residents	9,383	79.2	1,064	75.4	880	82.7	652	78.6	1,707	77.2	1,007	60.7	1,048	61.2	3,025	102.3
Long-stay waitlist without transfer patients	6,649	56.1	866	61.4	396	37.2	377	45.4	1,238	56.0	1,084	65.4	1,996	116.5	692	23.4
Total demand	16,032	135.4	1,930	136.9	1,276	120.0	1,029	124.0	2,945	133.1	2,091	126.1	3,044	177.7	3,717	125.7
Total long-stay supply	9,525	80	1,090	77.3	889	83.6	661	79.7	1,722	77.8	1,020	61.5	1,057	61.7	3,086	104.3
Difference between supply and demand	6,507	55	840	59.6	387	36.4	368	44.4	1,223	55.3	1,071	64.6	1,987	116.0	631	21.3

	Central East		0901		0902		0903		0904		0905		0906		0907	
			Peterborough City and County		Haliburton County and City Of Kawartha Lakes		Northumberland County		Durham North East		Durham West		Scarborough North		Scarborough South	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Demography, volume and length of stay (LOS)</b>																
Active LTC Residents*	8,467	71.5	983	69.7	811	76.3	596	71.8	1,539	69.6	901	54.3	956	55.8	2,681	90.6
Number of admissions*	3,382	28.6	381	27.0	404	38.0	273	32.9	595	26.9	344	20.7	288	16.8	1,097	37.1
<b>By age group**</b>																
Residents age <65	558	6.6%	68	6.9%	56	6.9%	40	6.7%	111	7.2%	46	5.1%	28	2.9%	209	7.8%
Residents age 65-74	835	9.9%	95	9.7%	82	10.1%	60	10.1%	178	11.6%	87	9.7%	49	5.1%	284	10.6%
Residents age 75-84	2,125	25.1%	228	23.2%	195	24.0%	153	25.7%	395	25.7%	245	27.2%	185	19.4%	724	27.0%
Residents age 85+	4,949	58.5%	592	60.2%	478	58.9%	343	57.6%	855	55.6%	523	58.0%	694	72.6%	1,464	54.6%
Mean age of residents	84		84		84		84		83		84		88		83	
Mean age of residents at admission	84		84		84		83		83		85		87		83	
<b>Length of stay</b>																
Mean LOS (days)	1,009		1,073		980		911		1,098		900		1,333		924	
Median LOS (days)	625		642		596		557		734		507		972		580	
<b>Residents by level of ADL assistance required**</b>																
None or limited assistance required	1,634	19.3%	240	24.4%	229	28.2%	119	20.0%	312	20.3%	142	15.8%	179	18.7%	413	15.4%

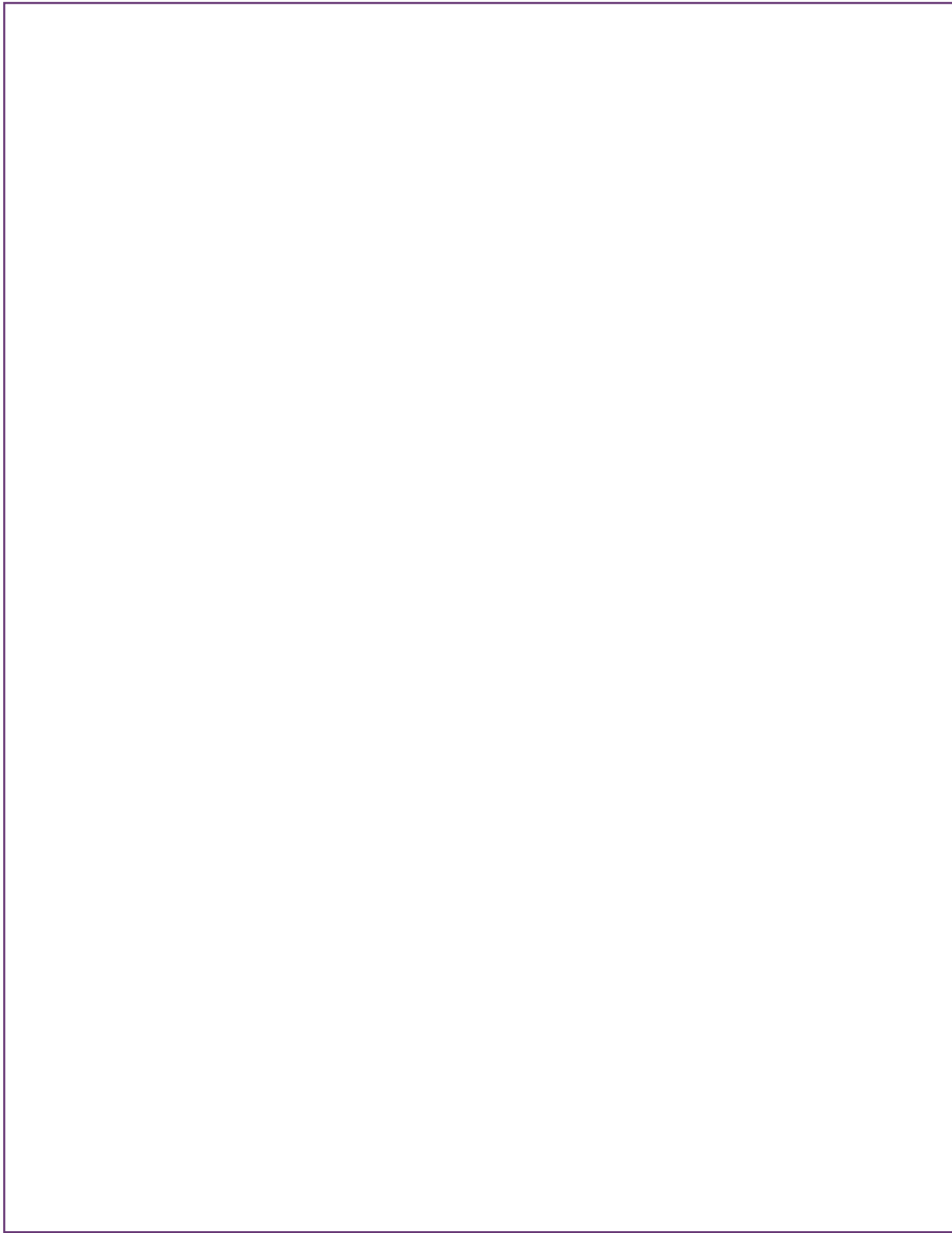


	Central East		0901		0902		0903		0904		0905		0906		0907	
			Peterborough City and County		Haliburton County and City Of Kawartha Lakes		Northumberland County		Durham North East		Durham West		Scarborough North		Scarborough South	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Extensive assistance required	4,509	53.3%	555	56.5%	414	51.0%	381	63.9%	768	49.9%	459	50.9%	527	55.1%	1,405	52.4%
Dependent	2,324	27.4%	188	19.1%	168	20.7%	96	16.1%	459	29.8%	300	33.3%	250	26.2%	863	32.2%
<b>Residents by level of aggressive behaviour**</b>																
No signs of aggressive behaviour	4,766	56.3%	509	51.8%	459	56.6%	268	45.0%	820	53.3%	470	52.2%	620	64.9%	1,620	60.4%
Some signs of aggressive behaviour	1,949	23.0%	273	27.8%	218	26.9%	173	29.0%	301	19.6%	219	24.3%	187	19.6%	578	21.6%
Moderate to severe aggressive behaviour	1,245	14.7%	150	15.3%	110	13.6%	125	21.0%	265	17.2%	145	16.1%	111	11.6%	339	12.6%
Very severe aggressive behaviour	506	6.0%	51	5.2%	24	3.0%	30	5.0%	153	9.9%	67	7.4%	38	4.0%	143	5.3%
<b>Cognitive impairment categories **</b>																
Relatively intact	1,548	18.3%	188	19.1%	174	21.5%	64	10.7%	268	17.4%	146	16.2%	154	16.1%	554	20.7%
Mild impairment	4,544	53.7%	555	56.5%	448	55.2%	396	66.4%	801	52.0%	462	51.3%	528	55.2%	1,354	50.5%
Severe impairment	2,375	28.1%	240	24.4%	189	23.3%	136	22.8%	470	30.5%	293	32.5%	274	28.7%	773	28.8%
<b>RUG categories **</b>																
1 Extensive Services	373	4.4%	38	3.9%	16	2.0%	15	2.5%	81	5.3%	35	3.9%	42	4.4%	146	5.4%
2 Special Rehabilitation	243	2.9%	17	1.7%	29	3.6%	23	3.9%	47	3.1%	10	1.1%	49	5.1%	68	2.5%

	Central East		0901		0902		0903		0904		0905		0906		0907	
			Peterborough City and County		Haliburton County and City Of Kawartha Lakes		Northumberland County		Durham North East		Durham West		Scarborough North		Scarborough South	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
3 Special Care	763	9.0%	91	9.3%	76	9.4%	71	11.9%	144	9.4%	92	10.2%	50	5.2%	239	8.9%
4 Clinically Complex	1,889	22.3%	149	15.2%	172	21.2%	133	22.3%	327	21.2%	281	31.2%	199	20.8%	628	23.4%
5 Impaired Cognition	1,042	12.3%	151	15.4%	105	12.9%	84	14.1%	202	13.1%	126	14.0%	104	10.9%	270	10.1%
6 Behavioural Problems	144	1.7%	23	2.3%	25	3.1%	10	1.7%	43	2.8%	9	1.0%	7	0.7%	27	1.0%
7 Reduced Physical Functions	4,013	47.4%	514	52.3%	388	47.8%	260	43.6%	695	45.2%	348	38.6%	505	52.8%	1,303	48.6%
<b>Residents with Dementia**</b>	<b>5,502</b>	<b>65.0%</b>	<b>684</b>	<b>69.6%</b>	<b>543</b>	<b>67.0%</b>	<b>427</b>	<b>71.6%</b>	<b>1,004</b>	<b>65.2%</b>	<b>625</b>	<b>69.4%</b>	<b>580</b>	<b>60.7%</b>	<b>1,639</b>	<b>61.1%</b>

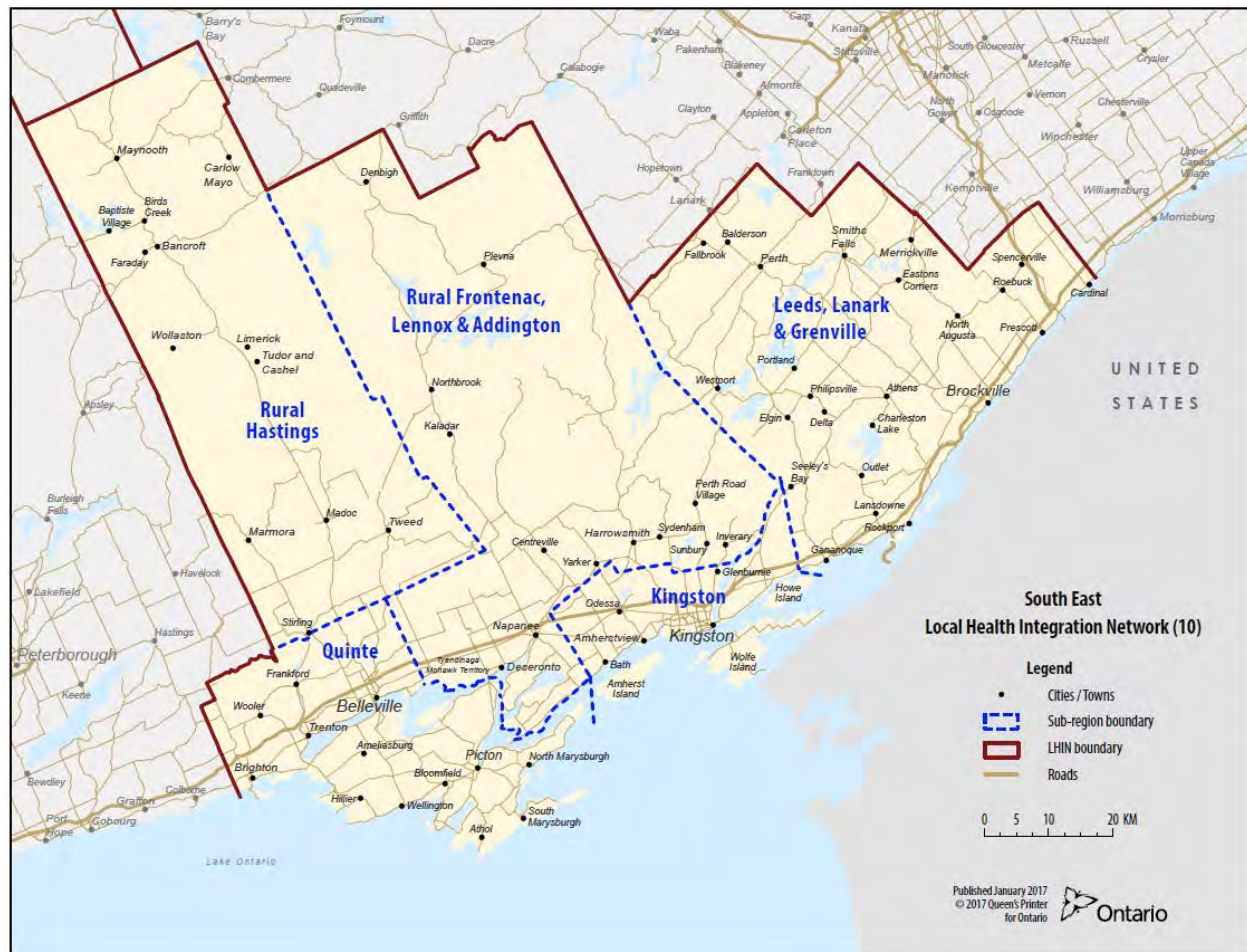
\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents





## 10. South East LHIN



## Contents

<b>10. South East LHIN</b>	<b>1</b>
Highlights	1
South East LHIN.....	1
Residents of South East LHIN Sub-Regions .....	3
Population Characteristics	8
Population Estimates .....	8
2016 Census Profile .....	9
Births and Mortality.....	16
General Health, Risk Factors, and Prevention .....	21
Chronic Conditions.....	23
Human Resources	35
Primary Care	38
Primary Care Enrolment .....	38
Selected Measures from the Health Care Experience Survey .....	38
Community Care	40
Mental Health	41
Wait Time for Community Services .....	41
Mental Health and Substance Abuse Emergency Department Visits .....	41
Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility .....	42
Surgery & Diagnostic Imaging	44
Day Surgery and Cardiac Catheterization Utilization.....	44
Surgical & Diagnostic Imaging Wait Times.....	46
Oncology and Dialysis	55
Home Care	59
Palliative Care	62
Emergency Department	65
Emergency Department Utilization .....	65
Emergency Department Performance .....	69
Acute Care	72
Acute Care Utilization by Residents of the South East LHIN .....	72
Acute Care Utilization for South East LHIN Facilities .....	73
Acute Care Inflow/Outflow .....	75
Post-Acute Care	76
Inpatient Rehabilitation Utilization.....	76
Complex Continuing Care Utilization .....	79
Alternate Level of Care	80
Closed ALC Cases .....	81
Open ALC Cases .....	82
Hospital Processes and Capacity.....	83
Long-Term Care	85

## Highlights

Comprehensive information about population demographics, health status, health outcomes, chronic conditions, human resources, primary care, health service utilization, and long-term care in the South East LHIN can be found under the content headings of in the remainder of this document, beginning with the socio-demographic profile. This Highlights introduction is intended to provide a guide to areas in which either the South East LHIN or one of its sub-regions is significantly different from the province as a whole. Sub-region comparisons within this section are always to the other 75<sup>1</sup> sub-regions across the province, and LHIN comparisons are always to the other 13 LHINs.

### South East LHIN

#### Population Characteristics

- Of the 13 LHINs that experienced population growth, the South East LHIN's growth was the 2<sup>nd</sup> lowest, at rate of only 1,4%, which corresponds to a net increase of approximately 7,000 residents.
- Out of all 14 LHINs, South East LHIN had the **highest** percentage of residents over 65 and over 75 years old.
- The South East LHIN had the **highest** percentage of population who reported English as their mother tongue.
- The multiple live birth rate was the **highest** in the province.
- South East had the **highest** proportion of hospital births in the province attended by a health care provider other than an obstetrician, family doctor or midwife.
- South East LHIN hospitals had the **highest** reduction in active cases and total days in adult designated mental health beds from 2013/14 to 2016/17.
- South East had the **highest** rate of active home care referrals per 1,000 population.
- In 2017/18, the South East LHIN had the **highest** service hour rates for personal support.
- South East hospitals had the **lowest** rate of admission to an inpatient bed from the emergency department.
- The South East LHIN had the **lowest** percentage of patients who received palliative home services that died in hospital.
- South East LHIN residents had the **highest** HIG weight in 2016/17.

#### Strengths

- Residents of the South East LHIN reported the **highest** percentage of receiving a flu shot in the year preceding the survey in 2015-16, **significantly higher** than the Ontario rate.
- 2<sup>nd</sup> lowest percentage of residents who went to a walk in clinic for something that could have been treated by a primary care provider if they were available.
- In 2017/18, emergency departments in the South East LHIN had the **shortest** ambulance offload time (tied with **North West**).

#### Challenges/Opportunities

- The South East LHIN has the highest dependency ratio of all 14 LHINs.
- In 2016, the pre-term birth rate was the 2<sup>nd</sup> highest in the province.
- In 2016, the "large for gestational age" rate per was the 2<sup>nd</sup> highest in the province.
- The proportion of people exposed to second hand smoke in the home is **significantly higher** than the Ontario rate.

---

<sup>1</sup> Or however many sub-regions have reported data across the province.

- The majority of adult South East residents were either overweight or obese, significantly worse than the Ontario rate.
- The prevalence rate for residents with one or more chronic conditions is **significantly higher** than Ontario and is the 2<sup>nd</sup> highest among the LHINs. Additionally, the prevalence rate for residents with two or more chronic conditions is **significantly higher** than Ontario.
- The South East LHIN has the **highest** prevalence rate for cancer.
- The South East LHIN has the 2<sup>nd</sup> highest prevalence rates for arthritis, chronic obstructive pulmonary disease, and hypertension.
- 2<sup>nd</sup> highest percentage of residents who went to the ED for something that could have been treated by a primary care provider.



## Residents of South East LHIN Sub-Regions

### RURAL HASTINGS SUB-REGION HIGHLIGHTS

#### Population Characteristics

- 5<sup>th</sup> lowest population among Ontario's sub-regions.
- 5<sup>th</sup> highest percentage of population aged 65+.
- 5<sup>th</sup> highest dependency ratio.
- 2<sup>nd</sup> highest percentage of residents who reported English as their mother tongue.
- 6<sup>th</sup> lowest percentage of residents who were visible minorities.
- 7<sup>th</sup> highest percentage of residents with less than high school.
- 3<sup>rd</sup> highest percentage of residents with only high school completion.
- 3<sup>rd</sup> lowest percentage of residents with bachelor's degree completion and beyond.
- **Lowest** participation rate of residents in the labour force.
- 4<sup>th</sup> highest fertility rate in the province.
- 6<sup>th</sup> lowest mean age at the birth of the first infant in the province.
- **Highest** all-cause mortality rate among Ontario's sub-regions.
- Among the eight highest sub-regions in total home service visit rates in 2017/18.
- Among the eight lowest sub-regions in nursing visit rates in 2017/18.

#### Strengths

- At the end of 2017/18, there were no residents of [Rural Hastings](#) designated ALC in any Ontario hospital.

#### Challenges/Opportunities

- 6<sup>th</sup> highest percentage of dwellings in need of major repairs.
- 8<sup>th</sup> highest percentage of sub-regions by percentage of seniors (65+) living in low-income households.
- 8<sup>th</sup> highest full-term low birth weight rates in the province.
- **Significantly higher** prevalence rate for arthritis than Ontario.
- Among the 8 sub-regions with the highest hospitalization rates for asthma, cerebrovascular disease, chronic obstructive pulmonary disease, hypertension, lower respiratory disease, and respiratory disease.
- 3<sup>rd</sup> highest all-cause potentially years of life lost rate.

## QUINTE SUB-REGION HIGHLIGHTS

### Population Characteristics

- 8<sup>th</sup> highest percentage of population aged 65+.
- 6<sup>th</sup> highest percentage of population aged 75+.
- 8<sup>th</sup> highest percentage of residents with only high school completion.
- 3<sup>rd</sup> highest multiple live birth rate in the province.
- Among the eight highest sub-regions in total home service visit rates in 2017/18.
- 4<sup>th</sup> lowest percentage of patients who receive palliative care who died in hospital in 2016/17 (tied with [South Georgian Bay](#)).
- 5<sup>th</sup> longest rehabilitation length of stay.

### Strengths

- 8<sup>th</sup> lowest stillbirth rate in the province.
- Compared to Ontario, the proportion of people with a regular medical doctor is **significantly higher** in [Quinte](#).

### Challenges/Opportunities

- **Significantly higher** smoking rates than Ontario.
- **Significantly higher** prevalence rates for arthritis, hypertension, asthma, and heart disease than Ontario.
- 2<sup>nd</sup> lowest percentage of residents who reported satisfaction with health care in their community.
- Among the 8 sub-regions with the highest hospitalization rates for asthma.

## RURAL FRONTENAC, LENNOX & ADDINGTON SUB-REGION HIGHLIGHTS

### Population Characteristics

- **Highest** percentage of residents who reported English as their mother tongue of all Ontario sub-regions.
- **Lowest** percentage of residents who reported no knowledge of English or French.
- 8<sup>th</sup> lowest percentage residents who were immigrants.
- **Lowest** percentage of all 76 sub-regions of recent immigrants.
- 8<sup>th</sup> lowest percentage of residents who are first generation Canadian.
- 4<sup>th</sup> lowest percentage of residents who are visible minorities.
- 3<sup>rd</sup> highest percentage of residents with post-secondary education below bachelor's degree.

### Strengths

- 5<sup>th</sup> lowest percentage of households with an insufficient number of bedrooms to accommodate household size.
- Among the 8 sub-regions with the lowest hospitalization rates for hypertension.

### Challenges/Opportunities

- The overweight or obesity rates was **significantly higher** in Rural Frontenac, Lennox & Addington than Ontario.
- 4<sup>th</sup> highest “large for gestational age” rate in the province.
- **Significantly higher** prevalence rate for arthritis than Ontario.

## KINGSTON SUB-REGION HIGHLIGHTS

### Population Characteristics

- 8<sup>th</sup> highest multiple live birth rate in the province.

### Strengths

- 6<sup>th</sup> lowest percentage of participants in the labour force with a commuting duration of 60 minutes and over.
- Compared to Ontario, the proportion of people with a regular medical doctor was **significantly higher** in [Kingston](#).
- 5<sup>th</sup> lowest percentage of residents who found it difficult to access care after-hours without going to an emergency department.
- 8<sup>th</sup> lowest percent of residents with one or more unplanned ED visits in the last 30 days of life.
- 6<sup>th</sup> lowest percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days (tied with [South Simcoe](#)).

### Challenges/Opportunities

- **Significantly higher** prevalence rate for asthma than Ontario.
- In 2017/18, residents of [Kingston](#) had the 3<sup>rd</sup> longest wait before being discharged from hospital with an ALC designation (closed cases).
- At the end of 2017/18, residents of [Kingston](#) had had the 5<sup>th</sup> longest wait to date for discharge from an ALC designation in hospital (open cases).

## LANARK, LEEDS & GRENVILLE SUB-REGION HIGHLIGHTS

### Population Characteristics

- 5<sup>th</sup> highest percentage of population aged 65+.
- 8<sup>th</sup> highest percentage of population aged 75+.
- 6<sup>th</sup> highest percentage of residents who reported English as their mother tongue.
- 5<sup>th</sup> lowest percentage of residents who reported no knowledge of English or French.
- 5<sup>th</sup> highest percentage of residents with post-secondary education below bachelor's degree.
- 8<sup>th</sup> lowest crude birth rate in the province.
- 3<sup>rd</sup> highest all-cause mortality rate per 100,000 population.
- Among the eight sub-regions with the highest service hour rates for personal support.
- 4<sup>th</sup> highest CCC active case rate.

### Strengths

- 7<sup>th</sup> lowest stillbirth rate in the province.
- 4<sup>th</sup> highest percentage of residents who report attachment to a primary care provider.
- 8<sup>th</sup> lowest percentage of residents who went to a walk in clinic for something that could have been treated by a primary care provider if they were available.

### Challenges/Opportunities

- The overweight or obesity rates was **significantly higher** than Ontario.
- Compared to Ontario, **significantly higher** smoking rates were found in [Lanark, Leeds & Grenville](#).
- **Significantly higher** prevalence rates for arthritis and diabetes than Ontario.
- 8<sup>th</sup> highest percentage of residents who went to ED for something that could have been treated by primary care provider.

## Population Characteristics

### Population Estimates<sup>2</sup>

- As of 2016, the population of the South East LHIN is estimated to be 498,004, a 1.4% increase from 2011.
  - The populations 65 and over and 75 and over represent 22% and 9% of the total population respectively.
- The population of the South East LHIN is projected to increase by 3.2% by 2021 and by 5.4% by 2026.

### Population Estimates from 2016 Census and Ministry of Finance

	Ontario	South East	Comments†
2011 Census, total population	12,851,821	478,262	
2016 Census, total population	13,448,494	482,391	
Population growth between 2011 and 2016 (based on Census)	4.6%	0.9%	
Estimated population, 2011	13,263,544	490,923	
<b>Estimated population, 2016</b>	<b>13,982,984</b>	<b>498,004</b>	
% population age 65+	16.38%	21.6%	<b>Highest</b>
% population age 75+	7.17%	9.23%	<b>Highest</b>
<b>% population change estimated 2011-2016</b>	<b>5.4%</b>	<b>1.4%</b>	
Projected population, 2021	14,980,422	513,748	
Projected population, 2026	15,822,463	524,895	
% changes (based on changes from the 2016 estimates)			
% population change forecasted 2016-2021	7.1%	3.2%	<i>2<sup>nd</sup> lowest</i>
% population change forecasted 2016-2026	13.2%	5.4%	<i>2<sup>nd</sup> lowest</i>

Sub-Region Name	Total population	Age 65plus	% 65+	Age 75plus	% 75+
Rural Hastings	35,057	8,416	24.01%	3,318	9.46%
Quinte	131,833	30,456	23.10%	13,534	10.27%
Rural Frontenac, Lennox & Addington	61,393	12,193	19.86%	4,538	7.39%
Kingston	150,759	27,697	18.37%	12,657	8.40%
Lanark, Leeds & Grenville	118,962	28,819	24.23%	11,937	10.03%

<sup>2</sup> Please see note in Ontario chapter on Census versus Ministry of Finance estimates.

## 2016 Census Profile

### Census Demographics

- 14.4% of the population was in the age group 0-14 and 66.3% was in the age group 15-64.
- The dependency ratio in South East at 72.8 was higher than the province (64.5).
- 24.4% of South East's population lived in large urban communities.
- The smallest proportion of South East's population (19.8%) lived in medium/small population centre communities.
- 26.1% of South East's population lived in rural or small communities adjacent to urban areas communities.
- The largest proportion of South East's population (29.7%) lived in rural and small town communities.
- South East's land mass measures 18,253 square kilometres making it the 4<sup>th</sup> largest LHIN in the province.
- South East's population density was 26.4 persons per square kilometre making it the 3<sup>rd</sup> least densely populated LHIN in the province.

### Households

- In 2016, 100,465 households contained one or more family members aged 65 years and over. 24.9% of those individuals were living alone.
  - By sub-region, [Kingston](#) had the highest rate of seniors living alone (27.6%) and [Rural Frontenac, Lennox & Addington](#) with the lowest (21.0%).
  - By sub-region and household size, [Kingston](#) had the highest rate of one person households (30.8%) and [Rural Frontenac, Lennox & Addington](#) with the lowest (21.8%)
  - By sub-region and household size, [Rural Frontenac, Lennox & Addington](#) had the highest rate of 5 or more person households (7.1%) and Leeds, Lanark & Grenville with the lowest (5.5%).
- In 2016, 72,500 families with children were living within the boundaries of the South East LHIN. 30.0% of those families were lone parent.
  - By sub-region, [Kingston](#) had the highest rate of lone-parent families (32.0%) and [Rural Frontenac, Lennox & Addington](#) had the lowest (24.1%)
- The total number of owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio was 199,920. 24.9% of those households spent 30% or more of their income on rent or payments.
  - Of South East sub-regions, [Kingston](#) had the highest rate (27.2%) and [Rural Frontenac, Lennox & Addington](#) had the lowest (20.8%).
- The total number of private households was 204,010. 72.3% of those were owner occupied and 27.7% were rented.
  - Of South East sub-regions, [Rural Frontenac, Lennox & Addington](#) had the highest rate (84.8%) with [Kingston](#) having the lowest (62.4%).
- 7.4% of the private households in the South East were in need of major repair
  - Of South East sub-regions, [Rural Hastings](#) had the highest rate (10%) and [Kingston](#) had the lowest (6%).
- 2.6% of the private households in the South East LHIN had an insufficient number of bedrooms to accommodate the household makeup.
  - [Kingston](#) had the highest rate of unsuitable housing (2.9%) and [Rural Frontenac, Lennox & Addington](#) had the lowest (2.2%).

## Language

- In 2016, 91.7% of the population reported English, the highest proportion in the province. Just over 3% of the population reported French as their mother tongue.
  - By sub-region, [Rural Frontenac, Lennox & Addington](#) had the highest proportion (95.7%) and [Kingston](#) had the lowest proportion of residents who identified English as their mother tongue (87.0%).
  - By sub-region, [Kingston](#) had the highest proportion (4.0%) and [Rural Hastings](#) had the lowest proportion of residents who identified French as their mother tongue (1.2%).
- In 2016, 3.1% of South East LHIN residents were Francophone under the 2009 new Inclusive Definition of Francophone.
  - By sub-region, [Kingston](#) had the highest proportion of Francophone residents (4.2%) and [Rural Hastings](#) had the lowest (1.2%).
- 0.3% of the LHIN's population reported no knowledge of either official language.
  - By sub-region, [Kingston](#) reported the highest proportion of residents with no knowledge of English or French (0.5%). [Rural Frontenac, Lennox & Addington](#) sub-region and Leeds, Lanark and Greenville sub-region both had the lowest proportion (0.1%).
- English was the most common language spoken at home (95.9%), followed by French (1.0%), English and a non-official language (0.9%), English and French (0.2%) and Mandarin (0.2%).

## Income

- In the South East LHIN, 14.6% of the population lived on low income, based on the after-tax low income measure (LIM-AT). As a whole, the South East LHIN had one of the lowest proportions with low income (16.4%) among the 14 LHINs.
  - The proportion of residents living below the low income measure varied by sub-region, from 12.7% in the [Rural Frontenac, Lennox & Addington](#) sub-region to 19.1% in the [Rural Hastings](#) sub-region.
  - The proportion of households in the lowest income quintile ranged across sub-regions in the South East LHIN, from 19.1% in the [Rural Frontenac, Lennox & Addington](#) sub-region to 26.9% in the [Rural Hastings](#) sub-region.
- In the South East LHIN, 20.8% of children under the age of 6 live in low income households.
  - By sub-region, children living in low income households ranged from 14.9% in the [Rural Frontenac, Lennox & Addington](#) sub-region to 26.8% in the [Rural Hastings](#) sub-region.
- The proportion of households in the highest income quintile varied across sub-regions in the South East LHIN, from 10.7% in the [Rural Hastings](#) sub-region to 20.1% in the [Kingston](#) sub-region.

## Immigration

- In 2016, immigrants accounted for 8.8% of the South East LHIN population, the third lowest proportion in the province. From 1980 to 2016, 51.4% of immigrants were admitted as economic immigrants, 36.8% were sponsored by family and 11.0% were admitted as refugees. 0.6% of South East LHIN residents were **recent immigrants**, having arrived in Canada between 2011 and 2016. Of the recent immigrants, the highest proportion came from the Philippines (10.7%), followed by India (10.2%) and the United States (10.0%).
  - Among the five South East LHIN sub-regions, the percentage of immigrants ranged from 5.8% in [Rural Frontenac, Lennox & Addington](#) to 12.5% in [Kingston](#).
  - The percentage of recent immigrants ranged from 0.2% in [Rural Frontenac, Lennox & Addington](#) to 1.2% in [Kingston](#).
- In 2016, 9.9% of the South East LHIN population were **first generation Canadians** (children of immigrants), the third lowest proportion in the province.



- Among the five South East LHIN sub-regions, the percentage of first generation Canadians ranged from 6.3% in [Rural Frontenac, Lennox & Addington](#) to 14.6% in [Kingston](#).

### Visible Minorities

- In 2016, 4.4% of the South East LHIN population was a visible minority, the third lowest proportion in the province.
  - Among the five South East LHIN sub-regions, the percentage of visible minorities ranged from 1.4% in [Rural Frontenac, Lennox & Addington](#) to 8.8% in [Kingston](#).

### Indigenous (Aboriginal) Identity

- 4.7% of the South East LHIN's residents identified as Aboriginal, with 2.9% identifying as First Nations and 1.6% as Métis.
  - Among the five South East LHIN sub-regions, the percentage of residents reporting Aboriginal identity ranged from 3.5% in [Lanark, Leeds & Grenville](#) to 9.3% in [Rural Frontenac, Lennox & Addington](#).

### Education

- In 2016, 19.3% of South East LHIN residents of working age had completed post-secondary education, ranking 11<sup>th</sup> across the province.
  - Across South East sub-regions, the percentage of the population with less than high school ranged from 7.7% in [Kingston](#) to 17.4% in [Rural Hastings](#).
  - The percentage of the population with high school completion ranged from 25.0% in [Kingston](#) to 31.2% in [Rural Hastings](#).
  - The percentage of the population with post-secondary education below bachelor's degree ranged from 36.5% in [Kingston](#) to 44.3% in [Rural Frontenac, Lennox & Addington](#).
  - The percentage of the population with bachelor's degree completion and beyond ranged from 9.4% in [Rural Hastings](#) to 30.9% in [Kingston](#).

### Labour Force Participation

- In 2016, the unemployment rate of 7.3% was similar to the Ontario rate (7.4%). South East LHIN residents aged 15+ had the 2<sup>nd</sup> lowest labour force participation rate (59%) among the 14 LHINs.
- Of those employed in 2016, 28% of South East LHIN residents had a commute time from their residence to their place of work of 30 minutes or more, while 11.4% had a commute time of 45 minutes or more.

## 2016 Census Profile

	Ontario	South East	Comments†
<b>Census Population 2016</b>			
Dependency ratio (number of "dependents" for every 100 "workers")	64.5	72.8	Highest
<b>Urban-Rural Gradient</b>			
% large urban	68.1%	24.4%	
% medium/small population centre	14.7%	19.8%	
% rural or small communities adjacent to urban areas	8.4%	26.1%	Highest
% rural and small town	8.8%	29.7%	
Land Area (sq km)	908,699	18,253	
Population Density (persons per square kilometre)	14.8	26.4	
<b>Population by Household and Families</b>			
% of people age 65+ living alone	23.5%	24.9%	
% of dwellings in need of major repairs	6.1%	7.4%	
% of households with an insufficient # of bedrooms	6.0%	2.6%	2 <sup>nd</sup> lowest
<b>Language</b>			
% who report English as their mother tongue	69.5%	91.7%	Highest
% who report French as their mother tongue	4.3%	3.0%	
% with no knowledge of English or French	2.5%	0.3%	2 <sup>nd</sup> lowest
% Francophone (IDF)	4.7%	3.1%	
<b>Population (in Private Households) Living in Low Income</b>			
% Population living below low-income measure (LIM-AT)	14.4%	14.6%	
% Children living in low income households/LIM (age<6)	19.8%	20.8%	
% Children living in low income households/LIM (age<18)	18.4%	18.5%	
% Seniors living in low income households/LIM (age 65+)	12.0%	11.0%	
<b>Immigration</b>			
% of population who are immigrants	29.1%	8.8%	
% of population who arrived within 5 years	3.6%	0.6%	
% first generation Canadian (children of immigrants)	31.1%	9.9%	
<b>Visible Minorities</b>			
% of population who are visible minorities	29.3%	4.4%	
<b>Indigenous Identity</b>			
% of population of Aboriginal identity	2.8%	4.7%	
% population First Nations identity	1.8%	2.9%	
% population Metis identity	0.9%	1.6%	
% population Inuk identity	0.0%	0.0%	
% Multiple Aboriginal responses	0.0%	0.1%	
% Aboriginal responses not included elsewhere	0.1%	0.1%	
<b>Educational Attainment</b>			
% Population age 25-64 with less than high school	10.4%	11.1%	
% Population age 25-64 with high school completion	24.5%	28.6%	
% Population age 25-64 with post-secondary education below bachelor's degree	33.2%	41.0%	2 <sup>nd</sup> highest
% Population age 25-64 with bachelor's degree completion and beyond	31.9%	19.3%	
<b>Labour Force Activity</b>			
% In the labour force (Participation rate)	64.7%	59.1%	2 <sup>nd</sup> lowest
% Unemployed	7.4%	7.3%	
% 60 minutes and over commuting duration	12.4%	5.8%	

†Highest/lowest ranking in the province, compared to other LHINs.

## Sub-Region Profiles, 2016 Census

Sub-Region	Rural Hastings	Quinte	Rural Frontenac, Lennox & Addington	Kingston	Lanark, Leeds & Grenville
<b>Census Population 2016</b>					
Dependency ratio (number of "dependents" for every 100 "workers")	79.6	75.5	71.4	66.1	77.4
<b>Urban-Rural Gradient</b>					
% large urban	0.0%	0.0%	0.0%	82.6%	0.0%
% medium/small population centre	6.0%	53.9%	0.0%	0.8%	18.8%
% rural or small communities adjacent to urban areas	23.0%	26.3%	53.9%	16.6%	24.1%
% rural and small town	71.0%	19.9%	46.1%	0.0%	57.1%
Land Area (sq km)	4,976	2,014	6,047	967	4,248
Population Density (persons per square kilometre)	6.7	65.0	9.8	147.4	27.3
<b>Population by Household and Families</b>					
% of people age 65+ living alone	23.6%	24.5%	21.0%	27.6%	24.9%
% Of dwellings in need of major repairs	10.0%	6.9%	8.9%	6.0%	8.0%
% of households with an insufficient # of bedrooms	2.8%	2.6%	2.2%	2.9%	2.5%
<b>Language</b>					
% who report English as their mother tongue	94.6%	92.4%	95.7%	87.0%	93.8%
% who report French as their mother tongue	1.2%	2.8%	1.7%	4.0%	3.2%
% with no knowledge of English or French	0.2%	0.3%	0.1%	0.5%	0.1%
% Francophone	1.2%	2.9%	1.7%	4.2%	3.3%
<b>Population (in Private Households) Living in Low Income</b>					
% Population living below low-income measure (LIM-AT)	19.1%	14.7%	12.7%	14.0%	14.6%
% Children living in low income households/LIM (age<6)	26.8%	22.8%	14.9%	19.3%	21.8%
% Children living in low income households/LIM (age<18)	25.0%	19.8%	15.1%	16.5%	19.4%
% seniors living in low income households/LIM (age 65+)	16.9%	10.6%	12.2%	9.1%	10.9%
<b>Population by Income Quintiles</b>					
% Economic families in Income quintile 1 - lowest income	26.9%	21.0%	19.1%	20.0%	20.4%
% Economic families in Income quintile 2	24.9%	22.8%	20.9%	18.5%	22.1%
% Economic families in Income quintile 3	20.7%	21.8%	21.4%	20.0%	21.5%
% Economic families in Income quintile 4	16.8%	20.2%	22.0%	21.4%	20.3%
% Economic families in Income quintile 5 - highest income	10.7%	14.3%	16.7%	20.1%	15.8%

Sub-Region	Rural Hastings	Quinte	Rural Frontenac, Lennox & Addington	Kingston	Lanark, Leeds & Grenville
<b>Immigration</b>					
% of population who are immigrants	6.9%	8.4%	5.8%	12.5%	6.9%
% of population who arrived within 5 years	0.3%	0.5%	0.2%	1.2%	0.4%
% first generation Canadian (children of immigrants)	7.2%	9.3%	6.3%	14.6%	7.5%
<b>Visible Minorities</b>					
% of population who are visible minorities	1.8%	3.9%	1.4%	8.8%	2.0%
<b>Indigenous Identity</b>					
% of population of Aboriginal identity	7.3%	4.4%	9.3%	3.6%	3.5%
% population First Nations identity	2.5%	2.7%	7.1%	2.2%	1.9%
% population Metis identity	4.3%	1.5%	1.7%	1.2%	1.3%
% population Inuk identity	0.1%	0.0%	0.1%	0.0%	0.0%
% Multiple Aboriginal responses	0.3%	0.1%	0.1%	0.1%	0.1%
% Aboriginal responses not included elsewhere	0.2%	0.1%	0.3%	0.1%	0.1%
<b>Educational attainment</b>					
% Population age 25-64 with less than high school	17.4%	12.5%	12.0%	7.7%	11.4%
% Population age 25-64 with high school completion	31.2%	30.8%	29.1%	25.0%	29.7%
% Population age 25-64 with post-secondary education below bachelor's degree	42.1%	41.3%	44.3%	36.5%	44.2%
% Population age 25-64 with bachelor's degree completion and beyond	9.4%	15.4%	14.7%	30.9%	14.7%
<b>Labour Force Activity</b>					
% In the labour force (Participation rate)	52.3%	57.7%	59.6%	62.7%	58.2%
% Unemployed	8.1%	6.6%	6.1%	7.7%	8.0%
% 60 minutes and over commuting duration	10.8%	4.7%	5.9%	3.0%	9.4%

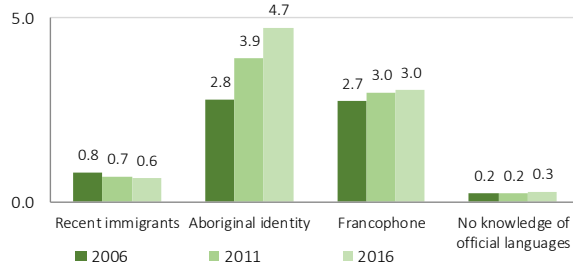
## South East

### 2016 Census Profile Summary

#### Number of private dwellings

2006	220,473
2011	228,714
2016	237,882

#### Immigration, identity and language (% of population)

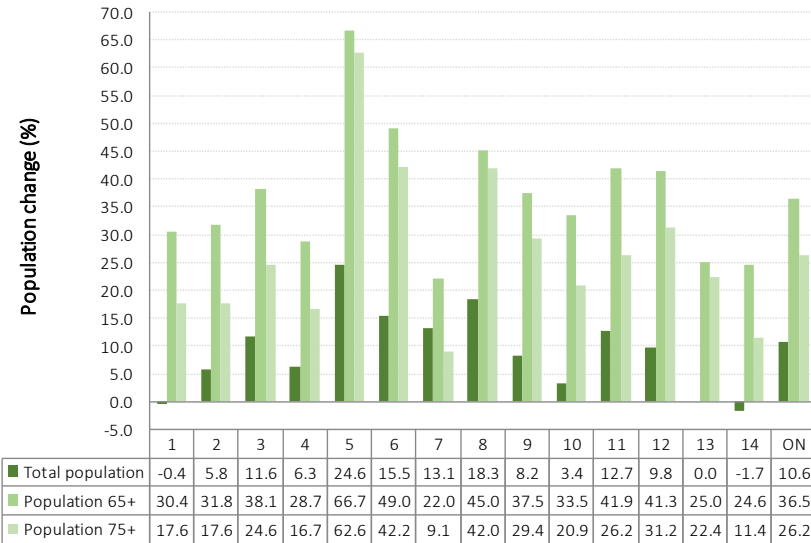


#### Population change (2006-2016)

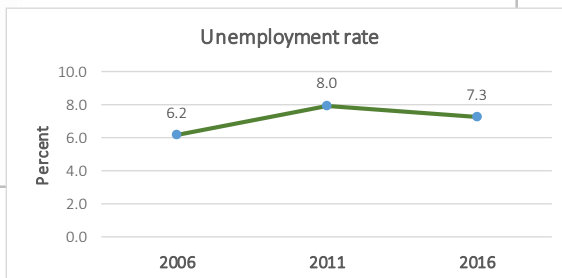
The growth of the senior (65+) population across LHINs ranged from 67% in Central West to 22% in Toronto Central.

The growth of the population age 75+ in South East between 2006 and 2016 was 20.9%, compared to 26.2% for the province as a whole. Total LHIN population growth was 3.4% for the same period.

#### Population change, 2006 to 2016, by LHIN

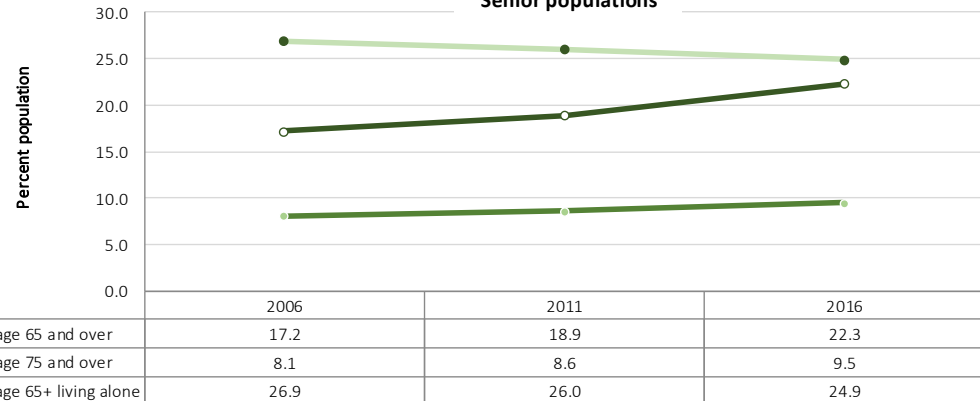


#### Change in unemployment rate, 2006 to 2016 = 17.5%



Percent population

#### Senior populations



## Births and Mortality

### Births and Maternal Age

- In FY 2016/17, there were 4,384 pregnancies and 4,466 births to South East women. 96% of births took place in a hospital; the remaining 4% were in the home, birth centre or other (including nursing stations, births outside of Ontario and other Ontario locations).
- In 2016, the crude birth rate (per 1,000 population) in South East was 8.6, the **lowest** rate in the province.
  - By sub-region, [Lanark, Leeds & Grenville](#) had the 8<sup>th</sup> lowest crude birth rate in the province (7.5).
- The fertility rate per 1,000 South East females of reproductive age (15 to 49) was 42.1.
  - By sub-region, [Rural Hastings](#) had the 4<sup>th</sup> highest fertility rate for women aged 15 to 49 in the province (58.4).
- For teenagers (15 to 19), the fertility rate per 1,000 South East females was 11.8.
- In FY2016, 3.4% of women who gave birth were under 20 years of age. 15.4% of women were 35 years or older.
- The overall mean age of mothers giving birth in this LHIN was 29.1.
- In 2016, the stillbirth rate per 1,000 live births in South East was 7.2.
  - By sub-region, [Lanark, Leeds & Grenville](#) and [Quinte](#) had the 7<sup>th</sup> and 8<sup>th</sup> lowest stillbirth rates in the province (5.6 and 5.7, respectively).

### Multiple Births

- The multiple live birth rate per 100 live births in 2016 was 3.9, the **highest** rate in the province.
  - By sub-region, [Kingston](#) and [Quinte](#) had the 3<sup>rd</sup> and 8<sup>th</sup> highest rates in the province (4.9 and 4.2, respectively).

### Pre-Term Births

- In 2016, the pre-term birth rate per 100 live births was 9.0, the 2<sup>nd</sup> highest rate in the province.

### Size for Gestational Age and Birth Weight

- The low birth weight rate per 100 live births in South East was 7.0.
- In 2016, the small for gestational age rate per 100 live births was 8.3.
- In 2016, the large for gestational age rate per 100 live births was 12.9, the 2<sup>nd</sup> highest rate in the province.
  - By sub-region, [Rural Frontenac, Lennox & Addington](#) had the 4<sup>th</sup> highest large for gestational age rate in the province (17.5).

### Attendants, Assisted Delivery & Epidural Anaesthesia during Labour

- In South East, 61.6% of hospital births were attended by an obstetrician. 23.4% were attended by a health care provider other than an obstetrician, family doctor or midwife – the **highest** proportion in the province.
- Among vaginal deliveries, the overall assisted delivery rate for South East women was 11.8 and using forceps was 1.9. Assisted delivery rate using vacuum extraction was 9.5.
- The epidural rate for vaginal deliveries was 55.5. Epidural rate for all deliveries was 47.7.

### Caesarean Deliveries

- In FY 2016/17, the total Caesarean section rate per 100 deliveries was 26.3.
- The rate of primary Caesarean section rate (the mother's first Caesarean, regardless if she had given birth vaginally before) was 17.7 per 100 deliveries. Primary Caesarean section rate was lower in women under 35 years of age (16.9) compared to those 35 and over (22.3).
- The rate of repeat Caesarean sections in South East was 84.3 per 100 deliveries.

### Breastfeeding

The rate of exclusive breastfeeding at discharge among term live births in this LHIN was 67.8%.

## Births and Maternal Outcomes, Ontario

	South East	Ontario	Comments <sup>†</sup>
Total births in Ontario, LHIN of maternal residence	4,466	141,163	
Hospital	4,284	136,505	
Home	166	3,813	
Birth Centre	<6	572	
Crude birth rate (per 1,000 population)	8.6	9.8	<i>Lowest</i>
Stillbirth rate (per 1,000 live births)	7.2	8.1	
Multiple live birth rate (per 100 live births)	3.9	3.3	<i>Highest</i>
Rate of preterm birth (<37 weeks) (%) <sup>*</sup>	8.3%	8.2%	
Preterm birth rate (per 100 live births) <sup>**</sup>	9.0	8.1	<i>2<sup>nd</sup> highest</i>
Total pregnancies in Ontario, LHIN of maternal residence	4,384	138,781	
Fertility rate (per 1,000 females of reproductive age)			
Overall rate (15 to 49)	42.1	41.2	
Teen rate (15 to 19)	11.8	6.3	
Distribution of maternal age (%)			
<20	3.4%	1.9%	
≥ 35	15.4%	23.8%	
Mean age of mother at birth of first infant	27.3	29.3	
Overall mean age of mother at birth	29.1	30.7	
Rate of Caesarean delivery (%), LHIN of hospital	26.4%	28.4%	
Total Caesarean Section Rate	26.3	28.4	
Primary Caesarean Section Rate, LHIN of patient	17.7	19.0	
Primary C-Section Rate (< 35 years)	16.9	17.9	
Primary C-Section Rate (≥ 35 years)	22.3	22.9	
Repeat Caesarean Section Rate	84.3	82.7	
Epidural Rate for Vaginal Deliveries	55.5	60.3	
Epidural Rate for All Deliveries	47.7	51.0	
Assisted Delivery Rate Among Vaginal Deliveries			
Overall	11.8	12.3	
Vacuum Extraction	9.5	9.1	
Forceps	1.9	2.8	
Healthcare provider who caught the baby for hospital births (%), LHIN of hospital			
Obstetrician	61.6%	78.8%	
Family doctor	8.1%	7.4%	
Midwife	6.9%	7.4%	
Other	23.4%	6.4%	<i>Highest</i>
Low birth weight rate (per 100 live births)	7.0	6.8	
Fullterm low birth weight rate (per 100 live births)	1.9	2.0	
Births small for gestational age (%) <sup>*</sup>	8.6%	9.7%	
Small for gestational age (per 100 live births) <sup>**</sup>	8.3	9.6	
Births large for gestational age (%) <sup>*</sup>	12.3%	9.7%	<i>2<sup>nd</sup> highest</i>
Large for gestational age (per 100 live births) <sup>**</sup>	12.9	9.8	<i>2<sup>nd</sup> highest</i>
Rate of exclusive breastfeeding among term live hospital births (%), LHIN of maternal residence	67.8%	62.8%	

<sup>†</sup>Ranking in the province compared to other LHINs.

<sup>\*</sup> As reported by BORN Ontario

<sup>\*\*</sup> As reported by Public Health Ontario



## Maternal smoking, alcohol and drug use during pregnancy among all women who live in Ontario and who had a live birth or stillbirth (LHIN of maternal residence), 2016/17 (BORN)

- In South East, the rate of women who self-identified as non-smokers at first prenatal visit was 79.4%. At the time of labour, 82.9% were non-smokers.
  - The prevalence of smoking 1-10 cigarettes and 10+ cigarettes at the first prenatal visit was 10.4% and 8.8%, respectively.
- 3.5% of the women reported drinking alcohol. 5.1% reported using drugs during pregnancy.

	South East	Ontario	Comments <sup>†</sup>
<b>Maternal smoking at first prenatal visit (%) LHIN of maternal residence<sup>‡</sup></b>			
% women who reported smoking (0) cigarettes/day	79.4%	90.7%	
% women who reported smoking (1 – 10) cigarettes/day	10.4%	5.5%	
% women who reported smoking (10+) cigarettes/day	8.8%	3.2%	2 <sup>nd</sup> highest
<b>Maternal smoking at time of labour (%)</b>			
% women who reported smoking (0) cigarettes/day	82.9%	92.5%	
% women who reported smoking (1 – 10) cigarettes/day	9.2%	4.6%	
% women who reported smoking (10+) cigarettes/day	7.1%	2.6%	2 <sup>nd</sup> highest
Alcohol consumption during pregnancy (%)	3.5%	2.6%	
Drug and substance exposure during pregnancy (%)	5.1%	2.3%	

<sup>†</sup>Ranking in the province compared to other LHINs.

## Life Expectancy

- Life expectancy at birth for both males and females in 2012-2014 was 81 years. By sex, life expectancy at birth for males in South East LHIN was 79 years, and 83 years for females.
- Life expectancy at age 65 for both sexes from 2012-2014 was 20 years. By sex, life expectancy at age 65 for males in South East LHIN was 19 years. Life expectancy at age 65 for females from 2012-2014 was 21 years.

	South East LHIN	Ontario	Rank among LHINs <sup>†</sup>
<b>Life Expectancy</b>			
<b>Life expectancy at birth- Both Sexes 2012-14</b>	80.6	82.3	
<b>Life expectancy at birth- Male 2012-14</b>	78.5	80.2	
<b>Life expectancy at birth- Female 2012-14</b>	82.6	84.3	
<b>Life expectancy at age 65- Both Sexes 2012-14</b>	20.0	20.9	
<b>Life expectancy at age 65- Male 2012-14</b>	18.5	19.3	
<b>Life expectancy at age 65- Female 2012-14</b>	21.4	22.2	

<sup>†</sup>Ranking in the province compared to other LHINs (highest and lowest 2).

## Mortality and Potential Years of Life Lost

- In 2012, 4,727 South East LHIN residents died.
- The all-cause mortality rate for LHIN residents was 960 per 100, 000 population in 2012; the **highest** in the province.
  - By sub-region, **Rural Hastings** had the **highest** all-cause mortality rate per 100,000 population in the province (1,418). **Lanark, Leeds & Grenville** sub-region had the 3<sup>rd</sup> highest rate in the province (1,086).
- Ischaemic heart disease was the leading cause of death in South East, followed by cancer of lung and bronchus and Dementia and Alzheimer's disease.

- 26,702 years of potential life were lost by LHIN residents in 2012.
  - By sub-region, **Rural Hastings** had the third highest rate for all-cause PYLL rate per 100,000 population (9,331.0).
- The LHIN's potential years of life lost (PYLL) rate for 2012 was 5,929 per 100,000 population aged less than 75. Since 2007, the PYLL rate decreased by 4.3% for South East LHIN residents.
- The leading causes of PYLL in 2012 were Ischaemic heart disease, cancer of lung and bronchus and Intentional self-harm.

### Mortality, Potential Years of Life Lost

	South East LHIN	Ontario	Rank among LHINs†	Range across SE sub-regions (2010-2012)
<b>Mortality, 2012</b>				
Total deaths, 2012	4,727	90,525		491-1,325
% change in total deaths (2007-2012)	-0.8%	4.1%		NA
All-cause mortality rate per 100,000 population	960.0	674.9	Highest	843.5-1,417.9
% change in all-cause mortality rate (2007-2012)	-2.3%	-0.7%		NA
% of deaths that were premature (age < 75)	38.0%	37.3%		36.0%-44.7%
<b>Top 10 leading causes of death, 2012 (rates per 100,000 population)<sup>3</sup></b>				
Ischaemic heart disease	141.1	98.0	2 <sup>nd</sup> highest	107.9-202.6
Dementia & Alzheimer's disease	72.3	55.6	Highest	62.6-99.3
Cancer of lung & bronchus	78.8	50.3	Highest	69.8-130.8
Cerebrovascular diseases	49.8	36.6		47.8-88.5
Chronic lower respiratory diseases	49.4	28.4	2 <sup>nd</sup> highest	40.4-88.5
Cancer of colon, rectum, anus	38.4	23.4	Highest	27.3-49.2
Diabetes	35.3	20.7	2 <sup>nd</sup> highest	26.6-59.0
Cancer of lymph, blood & related	26.8	20.0	Highest	20.3-34.4
Falls	23.8	17.4		13.7-26.5
Influenza & pneumonia	22.9	15.2	Highest	NA
<b>Potential years of life lost (PYLL), 2012</b>				
Total PYLL, 2012	26,702	551,256		3,098-7,498
% change in PYLL (2007-2012)	-3.4%	-0.6%		NA
PYLL rate per 100,000 population (age < 75)	5,929	4,405		5,432.6-9,331.0
% change in PYLL rate (2007-2012)	-4.3%	-5.0%		NA
<b>Top 10 leading causes of PYLL, 2012 (rates per 100,000 population, age &lt; 75)<sup>4</sup></b>				
Ischaemic heart disease	625.3	406.8	2 <sup>nd</sup> highest	518.6-1,036.2
Cancer of lung & bronchus	519.8	322.6	Highest	463.8-947.8
Intentional self-harm	381.7	284.7		325.8-457.5
Perinatal conditions	216.5	253.3		137.3-307.5
Accidental poisoning	208.1	190.6		112.4-350.4
Transport accidents	272.7	171.8		166.3-541.3
Cancer of lymph, blood & related	176.8	149.1		NA
Cancer of colon, rectum, anus	227.6	141.3	Highest	151.4-273.2
Cirrhosis & other liver diseases	176.1	133.5		NA
Diabetes	231.2	110.9	2 <sup>nd</sup> highest	NA

†Ranking in the province, compared to other LHINs.

<sup>3</sup> Mean rate from 2010-2012

<sup>4</sup> Mean rate from 2010-2012

## General Health, Risk Factors, and Prevention

### General Health

- In 2015-16, 58% of South East LHIN residents said they had very good or excellent health.
- 68% reported very good or excellent mental health. The rate declined between 2005 and 2014 as it did for Ontario overall.
- 22% of South East residents reported that most days were “quite a bit” or “extremely” stressful.

### Prevention

- 92% of South East residents reported having a regular medical doctor.
  - Compared to Ontario, the proportion of people with a regular medical doctor is **significantly higher** in the sub-regions of [Quinte](#) and [Kingston](#).
- 42% of residents of South East LHIN indicated that they received a flu shot in the year preceding the survey in 2015-16, which is **significantly higher** than the Ontario rate of 33%, and best among the LHINs. That said, the rate declined by 7% between 2005 and 2014.

### Risk Factors

- 20% of South East residents reported daily or occasional smoking in 2015-16. Smoking rates generally have been declining over time in Ontario, but did not improve in the South East LHIN between 2005 and 2014.
  - Compared to Ontario, **significantly higher** smoking rates are found in the sub-regions of [Quinte](#), and [Lanark, Leeds & Grenville](#).
- The proportion of people (11%) exposed to second hand smoke in the home is **significantly higher** than the Ontario rate of 7%.
- 19% of South East residents reported heavy drinking. Heavy drinking is defined as having consumed 5 or more drinks for males and 4 or more drinks for women on at least one occasion at least once a month during the past year.
- The majority-67%- of adult South East residents were either overweight or obese, significantly worse than the Ontario rate of 61%. Overweight and obesity are rising over time in Ontario, and many of the LHINs, including South East. The obesity rate (36%) was **significantly higher** than the Ontario rate (24%).
  - Overweight or obesity rates are **significantly higher** than Ontario in the [Rural Frontenac, Lennox & Addington](#) and [Lanark, Leeds & Grenville](#) sub-regions.
- 43% of South East residents were physically inactive—now defined as less than 150 minutes of moderate to vigorous activity per week.
- 74% of South East residents did not consume enough fruits and vegetables (i.e., had fewer than 5 servings of fruits or vegetables daily).

## General Health, Risk Factors, and Prevention; South East LHIN

	South East LHIN 2015-16	Ontario (2015-16)	Rank among LHINs <sup>†</sup> (2015-16)	Range across SE sub- regions (2011-14)*
<b>General Health</b>				
General health, % of the population age 12+ with...				
Very good or excellent self-perceived health	58%	61%		54-66%
Very good or excellent self-perceived mental health	68%	71%	3 <sup>rd</sup> lowest	66-74%
Days that are 'quite a bit' or 'extremely' stressful (age 15+)	22%	22%		
<b>Prevention</b>				
Use of Health Services and Preventive Care, % of the population age 12+ who...				
Have a regular medical doctor	92%	90%	3 <sup>rd</sup> highest	94-96%
Have consulted with family doctor/general practitioner (past yr)	75%	74%		
Received flu shot in the past year	42% <sup>1</sup>	33%	Highest	
<b>Risk Factors</b>				
Risk factors, % of the population age 12+ who...				
Are daily or occasional smokers	20%	17%	3 <sup>rd</sup> highest	19-30% <sup>c</sup>
Are exposed to second-hand smoke in the home	11.0% <sup>1</sup>	6.9%	3 <sup>rd</sup> highest	
Are heavy drinkers	19%	18%		
Are overweight or obese (age 18+)	67% <sup>1</sup>	61%		57-64%
Are overweight (age 18+)	32%	35%	Lowest	33-43%
Are obese (age 18+)	36% <sup>1</sup>	26%	Highest	21-27%
Are physically inactive	43%	42%		40-45%
Consume < 5 servings of fruits/vegetables daily	74%	72%	Highest	54-65%

\*2011-2014 sub-region rates are not directly comparable with LHIN and Ontario rates from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

<sup>†</sup>Top or bottom 3 ranking in the province, compared to other LHINs. Interpret with caution, rank based on point estimate, which may or may not be significantly different from Ontario. See significance flags for each measure below.

<sup>1</sup> LHIN is **significantly higher** than Ontario

<sup>-1</sup> LHIN is **significantly lower** than Ontario

<sup>c</sup> Estimates with high sampling variability (CV between 16.6 -33.3) must be used with caution.

## Chronic Conditions

### Prevalence, mortality, hospital separations and hospital days of stay for selected chronic conditions

- 45.8% of South East residents (aged 12+) reported having a one or more chronic conditions with 20.8% having two or more chronic conditions.
- Of note, the prevalence rate for residents with one or more chronic conditions was **significantly higher** than Ontario (39.6%) and was the 2<sup>nd</sup> highest among the LHINs.
- Additionally, the prevalence rate for residents with two or more chronic conditions was **significantly higher** than Ontario.
- Chronic conditions with the highest or lowest prevalence rates compared to other LHINs were as follows: Arthritis - 2<sup>nd</sup> highest; Cancer - **Highest**; COPD (35+) - 2<sup>nd</sup> highest; High blood pressure - 2<sup>nd</sup> highest.
- The mean health care cost per user for South East residents in 2015/16 was \$3,400 (\$2,750 for Ontario). SE LHIN was among the 3 LHINs with the highest mean health care cost per user.
- 6.6% of the patients were complex (4+ conditions), 5.8% for Ontario.
- The mean healthcare cost of a complex patient was \$23,500 compared to \$22,050 for Ontario.
- 6.6% of the patients were high cost user patients, 5.0% for Ontario. SE LHIN was among the 3 LHINs with the largest proportion of high cost user patients.
- The mean healthcare cost per high cost user was \$37,250 compared to \$37,700 for Ontario.
- The hospitalization rate (per 100,000 population) for asthma in South East LHIN was 49.6 compared to 34.3 for Ontario. SE LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for cerebrovascular disease in South East LHIN was 155.2 compared to 133.2 for Ontario. SE LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for chronic obstructive pulmonary disease in South East LHIN was 261 compared to 171.8 for Ontario. SE LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for lower respiratory disease in South East LHIN was 312.6 compared to 208.9 for Ontario. SE LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for respiratory disease in South East LHIN was 707.1 compared to 599.7 for Ontario. SE LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for stroke in South East LHIN was 128.5 compared to 112.5 for Ontario. SE LHIN was among the 3 LHINs with the highest rates.

## Chronic Conditions, Complex Patients

Condition	South East	Ontario	Comment
<b>Self-reported prevalence (2015-16), rate per 100, age 12+</b>			
Arthritis	26.7	20.6	2 <sup>nd</sup> highest
Asthma	9.9	8.7	
Cancer	2.0 <sup>C</sup>	1.3	Highest
Chronic Obstructive Pulmonary Disease (COPD) (age 35+)	6.3	4.0	2 <sup>nd</sup> highest
Diabetes	8.1	7.4	
High blood pressure	21.3	18.2	2 <sup>nd</sup> highest
Heart disease	5.3	4.6	
Suffer from effects of stroke	0.9 <sup>D</sup>	1.3	
Have a chronic condition	45.8	39.6	2 <sup>nd</sup> highest
Have multiple chronic conditions <sup>1</sup>	20.8	16.2	

C: 0.15<CV<=0.25 Marginal (Use with caution-high sampling variability)

D: 0.25<CV<=0.35 Marginal (Use with caution-high sampling variability)

1 - Of the selected conditions on this list

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>			
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	49.6	34.3	
Cardiovascular disease	939.5	916.9	
Cerebrovascular disease	155.2	133.2	
COPD	261.0	171.8	
Diabetes	111.3	100.2	
Hypertension	18.4	18.0	
Ischemic heart disease	308.6	314.8	
Lower respiratory disease	312.6	208.9	
Respiratory disease	707.1	599.7	
Stroke	128.5	112.5	
<b>Complex Patients and high cost users, 2015/16</b>			

Mean health care cost per user \$	\$ 3,400	\$ 2,750
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$ 23,500	\$ 22,050
# of patients that are complex	27,335	680,115
% of all patients (health care users) that are complex	6.6%	5.8%
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$ 37,250	\$ 37,700
# of patients that are high cost users	27,425	581,670
% of patients that are high cost users	6.6%	5.0%

## RURAL HASTINGS SUB-REGION (1001)

- The prevalence rate (per 100) for the population with arthritis (14+) was 27.1 (Ontario - 17.3). **Rural Hastings** sub-region's rate was **significantly higher** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for asthma was 57.2 (Ontario - 34.3). **Rural Hastings** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 180.1 (Ontario - 133.2). **Rural Hastings** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 407.8 (Ontario - 171.8). **Rural Hastings** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for hypertension was 29.3 (Ontario - 18). **Rural Hastings** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 467.2 (Ontario - 208.9). **Rural Hastings** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 976.7 (Ontario - 599.7). **Rural Hastings** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **Rural Hastings** sub-region was \$3,200 (Ontario - \$2,750).
- 7.2% of patients from **Rural Hastings** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Rural Hastings** sub-region was \$19,100 (Ontario - \$22,050).
- 6.5% of patients from **Rural Hastings** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Rural Hastings** sub-region was \$34,800 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Rural Hastings	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	27.1	17.3	6
Asthma	7.5	7.8	44
Diabetes	9.3	6.8	10
High blood pressure	20.2	18.1	34
Heart disease	7.2	5.0	9

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
<i>AGE STANDARDIZED rate per 100,000</i>			
Asthma	57.2	34.3	7
Cardiovascular disease	1,150.1	916.9	16
Cerebrovascular disease	180.1	133.2	7
COPD	407.8	171.8	5
Diabetes	153.6	100.2	11.5
Hypertension	29.3	18.0	7
Ischemic heart disease	404.6	314.8	17
Lower respiratory disease	467.2	208.9	3
Respiratory disease	976.7	599.7	5
Stroke	141.2	112.5	12

Complex Patients and high cost users, 2015/16	Ontario	Ranking*	
Mean health care cost per user \$	\$3,200	\$ 2,750	23.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$19,100	\$ 22,050	67.5
# of patients that are complex	2,700	680,115	
% of all patients (health care users) that are complex	7.2%	5.8%	13
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$34,800	\$ 37,700	65
# of patients that are high cost users	2,430	581,670	
% of patients that are high cost users	6.5%	5.0%	20

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.



## QUINTE SUB-REGION (1002)

- The prevalence rate (per 100) for the population with arthritis (14+) was 22.3 (Ontario - 17.3). **Quinte** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with asthma was 12 (Ontario - 7.8). **Quinte** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with high blood pressure was 21.9 (Ontario - 18.1). **Quinte** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with heart disease was 7.8 (Ontario - 5). **Quinte** sub-region's rate was **significantly higher** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for asthma was 62.1 (Ontario - 34.3). **Quinte** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **Quinte** sub-region was \$3,300 (Ontario - \$2,750).
- 6.4% of patients from **Quinte** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Quinte** sub-region was \$22,050 (Ontario - \$22,050).
- 6.6% of patients from **Quinte** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Quinte** sub-region was \$35,150 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Quinte	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	22.3	17.3	20
Asthma	12.0	7.8	2
Diabetes	8.9	6.8	14
High blood pressure	21.9	18.1	18
Heart disease	7.8	5.0	6

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
<i>AGE STANDARDIZED rate per 100,000</i>			
Asthma	62.1	34.3	4
Cardiovascular disease	907.2	916.9	50
Cerebrovascular disease	144.4	133.2	38
COPD	314.0	171.8	11
Diabetes	100.4	100.2	44
Hypertension	24.4	18.0	13
Ischemic heart disease	312.3	314.8	48
Lower respiratory disease	376.1	208.9	9
Respiratory disease	764.1	599.7	20
Stroke	118.0	112.5	40

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$3,300	\$ 2,750	20
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$22,050	\$ 22,050	38
# of patients that are complex	6,990	680,115	
% of all patients (health care users) that are complex	6.4%	5.8%	30
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$35,150	\$ 37,700	58
# of patients that are high cost users	7,185	581,670	
% of patients that are high cost users	6.6%	5.0%	15

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

### RURAL FRONTENAC, LENNOX & ADDINGTON SUB-REGION (1003)

- The prevalence rate (per 100) for the population with arthritis (14+) was 25.1 (Ontario - 17.3). Rural Frontenac, Lennox & Addington sub-region's rate was **significantly higher** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for hypertension was 7.7 (Ontario - 18). Rural Frontenac, Lennox & Addington sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in Rural Frontenac, Lennox & Addington sub-region was \$3,050 (Ontario - \$2,750).
- 6.4% of patients from Rural Frontenac, Lennox & Addington sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in Rural Frontenac, Lennox & Addington sub-region was \$21,800 (Ontario - \$22,050).
- 6.0% of patients from Rural Frontenac, Lennox & Addington sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in Rural Frontenac, Lennox & Addington sub-region was \$35,650 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Rural Frontenac, Lennox & Addington	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	25.1	17.3	10
Asthma	8.7	7.8	30
Diabetes	9.3	6.8	9
High blood pressure	22.9	18.1	11
Heart disease	6.8	5.0	12

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
<i>AGE STANDARDIZED rate per 100,000</i>			
Asthma	50.9	34.3	12
Cardiovascular disease	915.5	916.9	49
Cerebrovascular disease	160.8	133.2	21
COPD	257.1	171.8	18
Diabetes	79.9	100.2	58
Hypertension	7.7	18.0	72
Ischemic heart disease	300.6	314.8	52
Lower respiratory disease	308.0	208.9	16
Respiratory disease	717.3	599.7	23
Stroke	135.3	112.5	19

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$3,050	\$ 2,750	36.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$21,800	\$ 22,050	40.5
# of patients that are complex	3,090	680,115	
% of all patients (health care users) that are complex	6.4%	5.8%	32
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$35,650	\$ 37,700	50
# of patients that are high cost users	2,905	581,670	
% of patients that are high cost users	6.0%	5.0%	30

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

#### KINGSTON SUB-REGION (1004)

- The prevalence rate (per 100) for the population with asthma was 10.8 (Ontario - 7.8). **Kingston** sub-region's rate was **significantly higher** than Ontario.
- The mean health care cost per user in **Kingston** sub-region was \$3,550 (Ontario - \$2,750).
- 6.8% of patients from **Kingston** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Kingston** sub-region was \$25,700 (Ontario - \$22,050).
- 6.5% of patients from **Kingston** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Kingston** sub-region was \$40,400 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Kingston	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	19.7	17.3	34
Asthma	10.8	7.8	9
Diabetes	7.7	6.8	28
High blood pressure	21.4	18.1	22
Heart disease	5.5	5.0	32

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	49.7	13
Cardiovascular disease	867.5	55
Cerebrovascular disease	153.5	26
COPD	216.5	30
Diabetes	117.9	29
Hypertension	15.5	47.5
Ischemic heart disease	240.9	64
Lower respiratory disease	272.7	22
Respiratory disease	685.1	30
Stroke	128.7	28

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,550	12
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$25,700	13
# of patients that are complex	8,070	
% of all patients (health care users) that are complex	6.8%	16
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$40,400	12.5
# of patients that are high cost users	7,810	
% of patients that are high cost users	6.5%	18

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

#### LANARK, LEEDS & GRENVILLE SUB-REGION (1005)

- The prevalence rate (per 100) for the population with arthritis (14+) was 27.2 (Ontario - 17.3). [Lanark, Leeds & Grenville](#) sub-region's rate was **significantly higher** than Ontario.
- The mean health care cost per user in [Lanark, Leeds & Grenville](#) sub-region was \$3,550 (Ontario - \$2,750).
- 6.5% of patients from [Lanark, Leeds & Grenville](#) sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in [Lanark, Leeds & Grenville](#) sub-region was \$24,950 (Ontario - \$22,050).
- 7.1% of patients from [Lanark, Leeds & Grenville](#) sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in [Lanark, Leeds & Grenville](#) sub-region was \$37,350 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Lanark, Leeds & Grenville	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	27.2	17.3	5
Asthma	10.2	7.8	13
Diabetes	9.4	6.8	7
High blood pressure	21.2	18.1	24
Heart disease	5.8	5.0	29

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	31.5	44
Cardiovascular disease	1,092.8	21
Cerebrovascular disease	164.1	16
COPD	257.4	17
Diabetes	134.4	23
Hypertension	20.3	21
Ischemic heart disease	381.9	26
Lower respiratory disease	289.5	20
Respiratory disease	671.1	33
Stroke	135.0	20.5

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,550	12
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$24,950	17
# of patients that are complex	6,490	
% of all patients (health care users) that are complex	6.5%	28
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$37,350	30.5
# of patients that are high cost users	7,100	
% of patients that are high cost users	7.1%	9

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.



## Human Resources

### Physicians

- In 2016, there were approximately 1,200 physicians in South East LHIN.
  - This represents the equivalent of approximately 241 physicians for every 100,000 persons in South East LHIN.
  - The number of physicians in South East LHIN increased by close to 6% between 2013 and 2016 with higher growth occurring among specialists than family physicians.
- Between 2013 and 2016, there was an increase of approximately 18 family physicians in South East LHIN
  - The majority of the increase in South East LHIN occurred with 11 additional family physicians between 30-64 years of age.
- In 2016, approximately 14% of family physicians in South East LHIN were at or beyond the age of retirement (65 years of age or older).

### Nurses

- In 2016, there were 6,716 total nurses in South East LHIN.
- The total number of nurses decreased slightly by 0.6% in South East LHIN between 2013 and 2016.
  - While the number of Registered Nurses in South East LHIN between 2013 and 2016 decreased, there were substantial increases in the number of Nurse Practitioners (20% increase) and Registered Practical Nurses (6% increase) during the same time period.
- In 2016, there were approximately 1,349 nurses for every 100,000 residents of South East LHIN.

### Other Allied Health Professionals

- Between 2013 and 2016, the greatest growth in the number of allied health professionals in South East LHIN was among midwives (an increase of 6 or approximately 35%) and pharmacists (an increase of 87 or about 22%).
- There was also notable growth in the number of audiologists (2 additional or 13%) and occupational therapists (11 additional or 6%) in South East LHIN between 2013 and 2016.
- Opticians, speech-language pathologists and optometrists in South East LHIN experienced 9%, 5% and 4% reductions respectively in their raw numbers and slightly higher reductions in their numbers per capita.

South East LHIN					
Physicians	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Total Family Medicine Physicians</b>					
Number of family medicine physicians	533	544	562	551	3.4%
Rate per 100,000 population	108.1	110.1	113.4	110.6	2.4%
<b>Total Specialists</b>					
Number of specialists	597	628	631	649	8.7%
Rate per 100,000 population	121.0	127.1	127.3	130.3	7.7%
<b>Total Physicians</b>					
Number of total physicians	1,130	1,172	1,193	1,200	6.2%
Rate per 100,000 population	229.1	237.2	240.8	241.0	5.2%
<b>Family Physicians, by age group - count</b>					
Age <30	9			17	88.9%
Age 30-64	448			459	2.5%
Age 65-74	63			67	6.3%
Age 75+	13			8	-38.5%
Grand Total	533			551	3.4%
Age 65+	76			75	-1.3%
<b>Family Physicians, by age group – percent</b>					
Age <30	1.7%			3.1%	82.7%
Age 30-64	84.1%			83.3%	-0.9%
Age 65-74	11.8%			12.2%	2.9%
Age 75+	2.4%			1.5%	-40.5%
Age 65+	14.3%			13.6%	-4.5%
<b>South East LHIN</b>					
Nurses	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Registered Nurses</b>					
Number of RNs	4,562	4,486	4,399	4,367	-4.3%
Rate per 100,000 population	924.7	907.8	887.8	876.9	-5.2%
<b>Registered Practical Nurses</b>					
Number of RPN nurses	2,067	2,089	2,153	2,196	6.2%
Rate per 100,000 population	419.0	422.8	434.5	441.0	5.2%
<b>Nurse Practitioners</b>					
Number of NP nurses	127	144	158	153	20.5%
Rate per 100,000 population	25.7	29.1	31.9	30.7	19.3%
<b>Total Nurses</b>					
Total Nurse - Number of nurses	6,756	6,719	6,710	6,716	-0.6%
Total Nurse - Rate per 100,000 population	1369.5	1359.7	1354.2	1348.6	-1.5%

South East LHIN					
Other Regulated Health Professionals	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Audiologists</b>					
Audiologist - Number	16	14	17	18	12.5%
Audiologist - Rate per 100,000 population	3.2	2.8	3.4	3.6	11.4%
<b>Midwives</b>					
Midwife - Number	17	22	21	23	35.3%
Midwife - Rate per 100,000 population	3.4	4.5	4.2	4.6	34.0%
<b>Occupational Therapists</b>					
Occupational Therapist - Number	199	202	202	210	5.5%
Occupational Therapist - Rate per 100,000 population	40.3	40.9	40.8	42.2	4.5%
<b>Opticians</b>					
Optician - Number	66	62	65	60	-9.1%
Optician - Rate per 100,000 population	13.4	12.5	13.1	12.0	-9.9%
<b>Optometrists</b>					
Optometrist - Number	72	73	71	69	-4.2%
Optometrist - Rate per 100,000 population	14.6	14.8	14.3	13.9	-5.1%
<b>Pharmacists</b>					
Pharmacist - Number	402	443	469	489	21.6%
Pharmacist - Rate per 100,000 population	81.5	89.7	94.7	98.2	20.5%
<b>Psychologists</b>					
Psychologist - Number	163	164	164	164	0.6%
Psychologist - Rate per 100,000 population	33.0	33.2	33.1	32.9	-0.3%
<b>Speech-Language Pathologists</b>					
Speech-Language Pathologist - Number	81	81	76	77	-4.9%
Speech-Language Pathologist - Rate per 100,000 population	16.4	16.4	15.3	15.5	-5.8%

## Primary Care

### Primary Care Enrolment

- More than 400,000 (n=406,322) South East LHIN residents were enrolled with a PEM and 100,932 residents were affiliated with FFS physicians (i.e. not enrolled)
- Almost two-thirds (64%) of LHIN residents were affiliated with a FHO in 2016/2017, with a larger proportion part of a FHT.
- There are 34 practices with 448 physicians in the South East LHIN, and approximately one-quarter of physicians were affiliated with FFS (n=103), and one-third (36%, n=162) of physicians were affiliated with a FHT in a FHO.

### Selected Measures from the Health Care Experience Survey

#### Self-reported access to, and satisfaction with, primary care

	Ontario (2017)	LHIN (2017)	Range Across SE sub-regions (2014-2017)
Percentage who are satisfied with health care in their community	87%	85%	76% to 91%
Percentage with primary care providers (attached patients)	94%	94%	96% to 98%*
Percentage who saw their primary care provider within the same day/next day when sick	40%	37%	34% to 43%
Percentage who went to ED for something that could have been treated by primary care provider	42%	52% <sup>H</sup>	33% to 62%
Percentage who found it difficult to access care after-hours without going to an emergency department	53%	63% <sup>H</sup>	38% to 72%
Percentage who went to walk-in clinic in past 12 months	30%	13% <sup>L</sup>	8% to 25%
Percentage who went to a walk in clinic for something that could have been treated by provider if they were available	92%	89%	84% to 93%*

*H=significantly higher than the province*

*L=significantly lower than the province*

*\* some sub-regions not reportable*

- Eighty-five percent (85%) of South East residents were satisfied with health care in their community.
  - Kingston and Rural Frontenac, Lennox & Addington sub-regions were **significantly higher** than the provincial proportion at 91%.
- In 2017, 94% of South East adults (aged 16 years and older) had a primary care provider.
  - Lanark, Leeds, & Grenville had a **significantly higher** attachment rate at 98% (one of the highest in the province).
- In 2017, 37% of South East LHIN residents were able to see their primary care provider within the same day/next day when they were sick.
- Fifty-two (52%) percent of South East LHIN went to the ED for something that could have been treated by their primary care provider, **significantly higher** than the provincial value (42%).
  - Quinte (53%) and Lanark Leeds, & Grenville (62%) sub-regions are **significantly higher** than the provincial proportion, whereas the Kingston sub-region is **significantly lower** (33%).
- Most (63%) of South East LHIN residents found it difficult to access after-hours care without going to the ED. This is **significantly higher** than the provincial value (53%).

- There was significant variation observed across the LHIN as well: **Kingston** sub-region (38%) reported **significantly lower** than provincial proportions, and **Quinte** (72%), **Rural Frontenac, Lennox & Addington** (60%) and Lanark, Leeds, & Grenville (69%) sub-regions reported **significantly higher** proportions than the provincial proportion.
- In the South East LHIN, 13% of adults attended walk-in clinics in the previous 12 months, the lowest proportion in the province, **significantly lower** than the provincial value (30%).
  - All sub-regions but **Kingston** (at 25%) were **significantly lower** than the provincial proportion.
  - Eighty-nine percent (89%) felt that their walk-in visit could have been addressed by a primary care provider if one had been available.

## Community Care

- South East LHIN ranks second highest in CSS\_Community Visits- Non Face to Face Visits per 1,000 population with 170 (province is 112).
- South East LHIN ranks second lowest in CSS\_Resident Days (Assisted Living, Overnight stay care)Resident Days per 1,000 population with 133 (province is 366).
- South East LHIN ranks second lowest in CSS\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population 75+ with 112 (province is 397).
- South East LHIN ranks second lowest in CSS\_Resident Days (Assisted Living, Overnight stay care)Resident Days per 1,000 population 75+ with 1,445 (province is 5,110).

## Mental Health

### Wait Time for Community Services

- Support within housing had the longest median wait times among the community mental health (MH) services in South East LHIN (92 days) in 2017/18, 17 days longer than the province's median wait for that service.
- Among the substance abuse (SA) services provided in South East LHIN, residential supportive treatment had the longest median wait times (48 days), 38 days longer than the province's median wait in 2017/18.
- For problem gambling, only community treatment is provided in this LHIN. The median wait time for this treatment was 7 days longer than the provincial median wait of 10 days.

### Mental Health and Substance Abuse Emergency Department Visits

- In 2016/17, there were 11,370 unscheduled ED visits for South East residents where the main problem was a MH/SA condition. In total, there were 15,441 visits with a MH/SA condition in any of the diagnostic fields.
- Between 2013/14 and 2016/17, there was 22.2% growth in visits with a MH/SA main problem diagnosis (higher than the province's value of 20.9%) and 23.9% growth in visits with a MH/SA condition in any diagnostic field (higher than the province's value of 21.1%).
- The MH/SA ED visit rate (main diagnosis) per 1,000 population was the third highest in the province at 22.8. Between 2013/14 and 2016/17 South East LHIN residents had the third highest growth in visit rate (main diagnosis) in the province at 21.0%.
- Visits with a MH/SA main problem diagnosis accounted for 3.6% of all ED visits for South East LHIN residents.
- In 2016/17, there were 190 ED visits of South East residents for opioid overdose. Of those, 46.8% were accidental.
- The crude rate of ED visits for opioid overdose in FY2016/17 for South East residents was 3.8, higher than the provincial value (3.5). Between 2013/14 and 2016/17, there was a 2.3% growth in the visit rate for opioid overdose for all South East residents, the **lowest** growth in the province.

### Unscheduled emergency department utilization for mental health and substance abuse conditions, South East LHIN and Ontario residents, 2016/17

Measure	South East LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient<sup>†</sup></b>				
Main problem visits	11,370	268,514	22.2%	
% of total ED visits	3.6%	4.3%	-	
Any problem visits	15,441	338,260	23.9%	
% of total ED visits	4.9%	5.5%	-	
Main problem, visits per 1,000	22.8	19.2	21.0%	
Any problem, visits per 1,000	31.0	17.1%	22.7%	
ED visits for opioid overdose	190	4,831	3.3%	
% of visits that were accidental	46.8%	50.1%	-	
Crude rate per 10,000 population	3.8	3.5	2.3%	

<sup>†</sup>LHIN of patient results for Ontario exclude out-of-province residents

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

### Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility

- In 2016/17, there were 11,334 unscheduled ED visits in South East LHIN hospitals, where the main problem was a MH/SA condition. 1.5% of these visits were made by homeless individuals.
- There were 2,021 admissions and 2,200 active cases who received treatment in adult designated MH units in South East LHIN hospitals. There were 2,026 discharges from these units with the total days of discharge patients equal to 69,377 days. The mean length of stay in South East LHIN MH units was 34.2 days, the second highest in the province.
- Residents from outside the LHIN accounted for 9.3% of the active cases treated in South East LHIN.
- Between 2013/14 and 2016/17, active cases, admissions and discharges decreased in South East LHIN hospitals by 13.3%, 8.5% and 9.8%, respectively. The total days of discharged patients also decreased by 45.3%.
- Short stay (32.3%) and schizophrenia and psychotic disorders (27.3%) accounted for the largest proportions of active cases in South East LHIN hospitals in 2016/17. Compared with the provincial values, South East had larger proportions of active cases for short stay, schizophrenia and psychotic disorders, neurocognitive disorders and personality disorders.
- There were 2,279 active cases, 2,079 admissions and 2,077 discharges for South East LHIN residents from Ontario adult designated MH units. Mean length of stay for South East LHIN residents was the third highest in the province at 31.4 days. 12.5% of South East LHIN resident active cases received treatment in hospitals outside the LHIN. Compared with the provincial rates, South East LHIN residents had lower rates of active cases, admissions, and discharges per 100,000 population age 15+.
  - By sub-region, [Kingston](#) and [Rural Frontenac, Lennox & Addington](#) sub-regions had the 5<sup>th</sup> and 8<sup>th</sup> mean length of stay at 41.4 and 35.9 days.
- Active cases, admissions, discharges, total days and the associated rates increased for South East LHIN residents between 2013/14 and 2016/17.



### Adult designated mental health unit utilization, South East LHIN hospitals and residents, 2016/17

Measure	South East LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient</b>				
Active cases	2,279	64,523	15.5%	
Admissions	15.5%	60,197	24.5%	
Discharges	2,079	60,607	18.6%	
Total Days	24.5%	1,504,690	-38.5%	
Mean Length of Stay	2,077	24.8	-	3 <sup>rd</sup> highest
% Outflow Active Cases	18.6%	-	-	
Active Cases per 100,000 (age 15+)	65,281	548.5	13.9%	
Admission per 100,000 (age 15+)	-38.5%	511.7	22.8%	
Discharges per 100,000 (age 15+)	31.4	515.2	16.9%	
<b>SCIPP Categories - % of total active cases</b>				
Short Stay	30.3%	27.4%	-	
Schizophrenia and other psychotic disorders	27.1%	27.0%	-	
Neurocognitive disorders	5.4%	3.1%	-	
Bipolar and depressive disorders	24.1%	29.6%	-	
Personality disorders	3.9%	3.0%	-	
Feeding and eating disorders	0.3%	0.4%	-	
Substance Use disorders	4.9%	5.5%	-	
Other disorders	3.8%	4.0%	-	
<b>LHIN of hospital</b>				
Active cases	2,200	64,738	-13.3%	
Admissions	2,021	60,383	-8.3%	
Discharges	2,026	60,795	-9.8%	
Total Days (discharged patients only)	69,377	1,512,754	-45.3%	
Mean Length of Stay	34.2	24.9	-	2 <sup>nd</sup> highest
% Inflow Active Cases	9.3%	-	-	

‡Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

## Surgery & Diagnostic Imaging

### Day Surgery and Cardiac Catheterization Utilization

#### Day Surgery and Cardiac Catheterization Visits

- In 2016/17, there were 61,664 day surgery and ambulatory cardiac catheterization visits to South East LHIN hospitals. Residents from outside the LHIN accounted for 6.6% of the visits.
- Between 2013/14 and 2016/17, South East LHIN hospital's day surgery and cardiac catheterization visits were stable
- There were 66,622 day surgery and ambulatory cardiac catheterization visits for South East LHIN residents. There was a 1.3% increase in visits between 2013/14 and 2016/17, but the rate of visits was stable.
- In 2016/17, 13.6% of these visits occurred in hospitals outside the LHIN.
- The following sub-regions had among the eight highest outflow rates to other LHINs for all Ontario sub-regions:
  - **Rural Hastings** had the 5<sup>th</sup> highest outflow rate.
- The following sub-regions had among the eight lowest outflow rates to other LHINs for all Ontario sub-regions:
  - **Kingston** had the 8<sup>th</sup> lowest outflow rate.
- South East LHIN residents had 133.8 day surgery and cardiac catheterization visits per 1,000 population. This rate was higher than the provincial rate of 93.9.
- The following sub-regions had among the eight highest rates of visits per 1,000 population for all Ontario sub-regions:
  - **Rural Hastings** had the **highest** rate of visits per 1,000 population.
  - **Quinte** had the 3<sup>rd</sup> highest rate of visits per 1,000 population.
  - **Lanark, Leeds & Grenville** had the 7<sup>th</sup> highest rate of visits per 1,000 population.

#### Day surgery and ambulatory cardiac catheterization visits, South East LHIN and Ontario, 2016/17

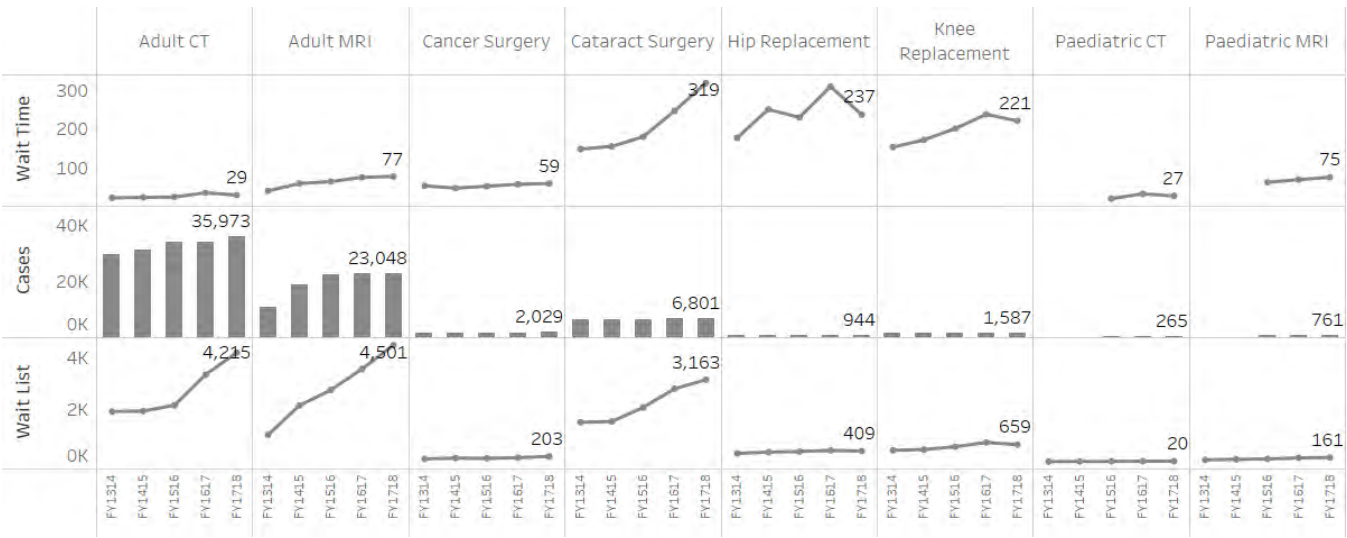
Measure	LHIN	Comments	Ontario†	LHIN % change 2013-14 - 2016/17	Range within LHINs	Range within SE sub-regions
<b>LHIN of hospital</b>						
Visits	61,664		1,322,943	-0.8%	27,727 - 158,077	
% Inflow visits	6.6%				0.7% - 58.4%	
<b>LHIN of patient</b>						
Total population	498,004		13,982,984	0.9%	235,148 - 1,893,948	
Visits	66,622		1,313,103	1.3%	28,401 - 157,644	6,009 - 21,526
% Outflow visits	13.6%				3.0% - 39.0%	3.6% - 38.5%
Visits per 1,000 population	133.8	2 <sup>nd</sup> highest	93.9	0.4%	66.8 - 151.0	95.9 - 171.4
- age 0-17 years	32.7		22.2		13.9 - 38.4	
- age 18-44 years	64.1		46.5		34.8 - 85.5	
- age 45-64 years	161.0	2 <sup>nd</sup> highest	125.3		93.9 - 183.0	
- age 65-79 years	287.1	2 <sup>nd</sup> highest	239.9		176.5 - 318.4	
- age 80+ years	243.0	2 <sup>nd</sup> highest	202.7		138.5 - 260.4	

†LHIN of patient results for Ontario exclude out-of-province residents

Surgical & Diagnostic Imaging Wait Times

South East LHIN Priority Procedures:  
Wait 2 90th Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

LHIN of Treatment

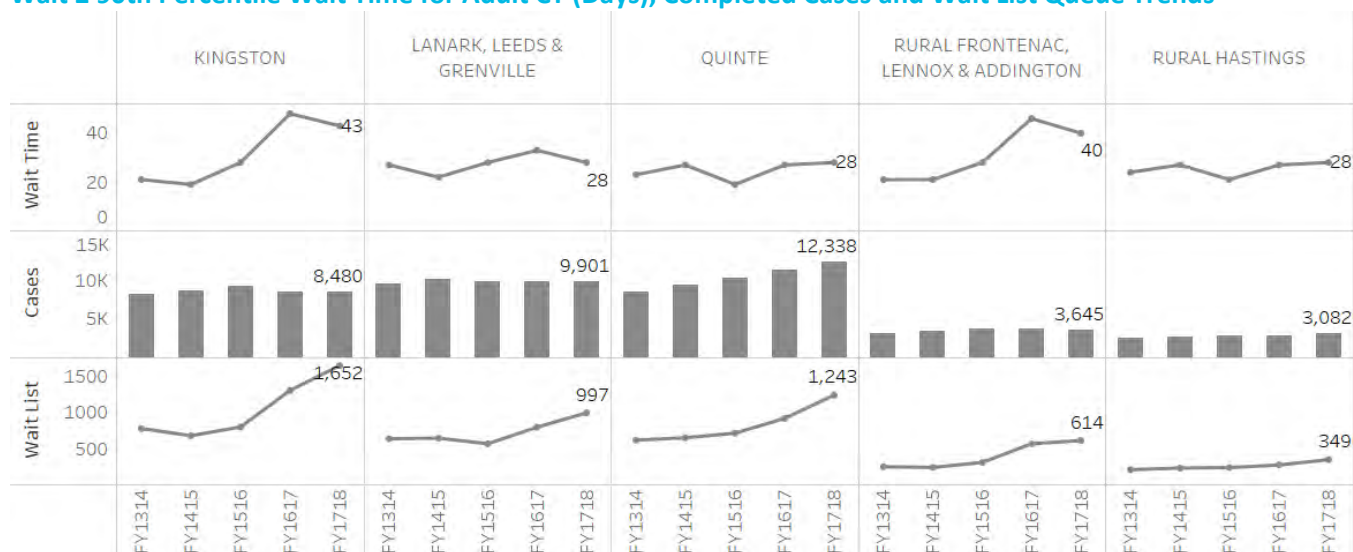


## Adult CT

- There were 35,973 adult CT scans completed in FY 2017-18; 1,867 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 29 days, 6 days shorter than the previous fiscal.
- In 2017/18, hospitals in the South East LHIN had the 4<sup>th</sup> shortest wait time for adult CT scans (tied with 1 other LHIN). [of only 13 reporting]
- The wait list queue at the start of FY 2017-18 was 4,215 patients; 853 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Adult CT (Days), Completed Cases and Wait List Queue Trends



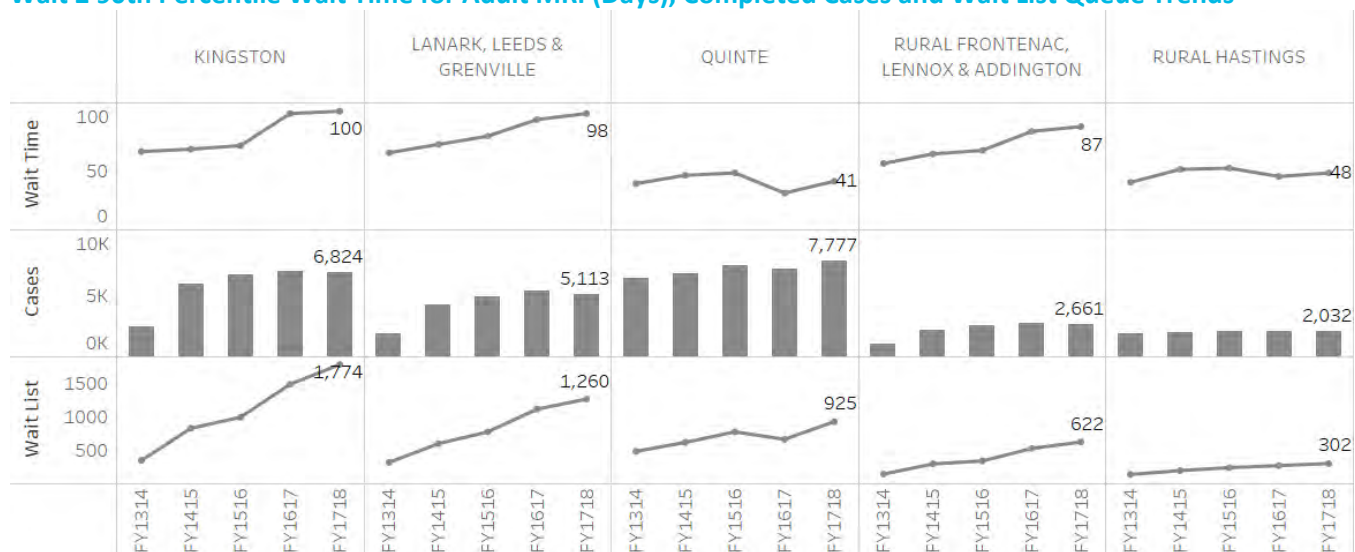
- South East LHIN sub-region (of Patient Residence) variation in FY 2017-18: 28 days to 43 days.

## Adult MRI

- There were 23,048 adult MRI scans completed in FY 2017-18; 165 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 77 days, 2 days longer than the previous fiscal.
- In 2017/18, hospitals in the South East LHIN had the 6<sup>th</sup> shortest wait time for adult MRI scans. [of only 13 reporting]
- The wait list queue at the start of FY 2017-18 was 4,501 patients; 917 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Adult MRI (Days), Completed Cases and Wait List Queue Trends



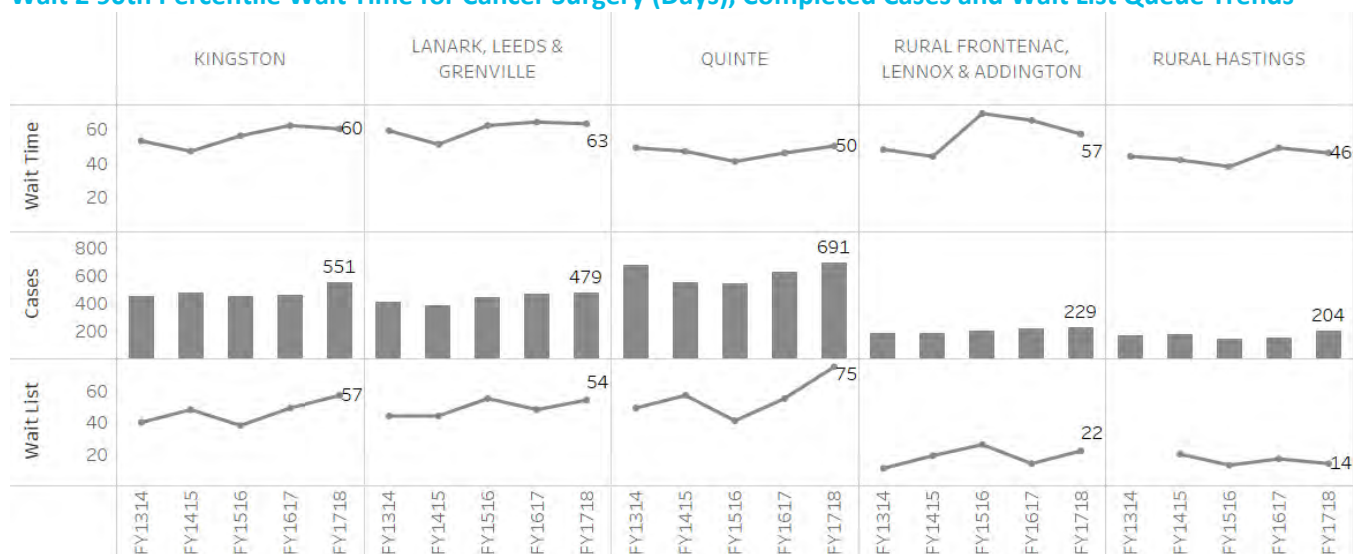
- South East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 41 days to 100 days.

## Cancer Surgery

- There were 2,029 cancer surgeries completed in FY 2017-18; 276 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 59 days, 2 days longer than the previous fiscal.
- In 2017/18, hospitals in the South East LHIN had the 3<sup>rd</sup> longest wait time for cancer surgery.
- The wait list queue at the start of FY 2017-18 was 203 patients; 48 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Cancer Surgery (Days), Completed Cases and Wait List Queue Trends



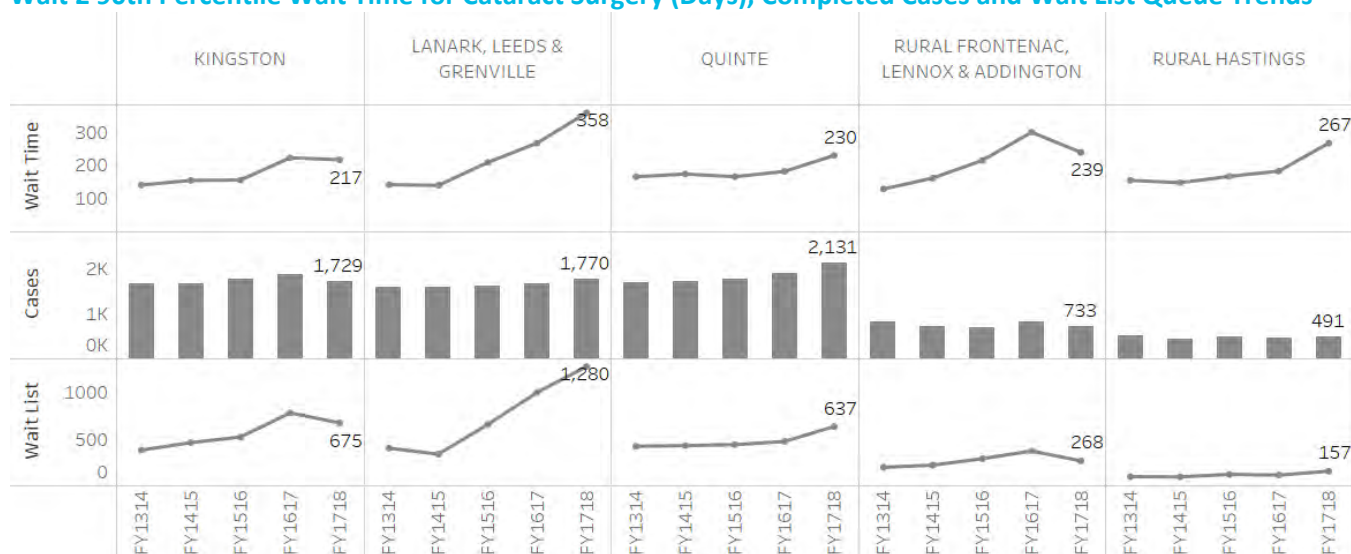
- South East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 46 days to 63 days.

## Cataract Surgery

- There were 6,801 cataract surgeries completed in FY 2017-18; 125 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 319 days, 72 days longer than the previous fiscal.
- In 2017/18, hospitals in the South East LHIN had the 3<sup>rd</sup> longest wait time for cataract surgery.
- The wait list queue at the start of FY 2017-18 was 3,163 patients; 344 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Cataract Surgery (Days), Completed Cases and Wait List Queue Trends



- South East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 217 days to 358 days.

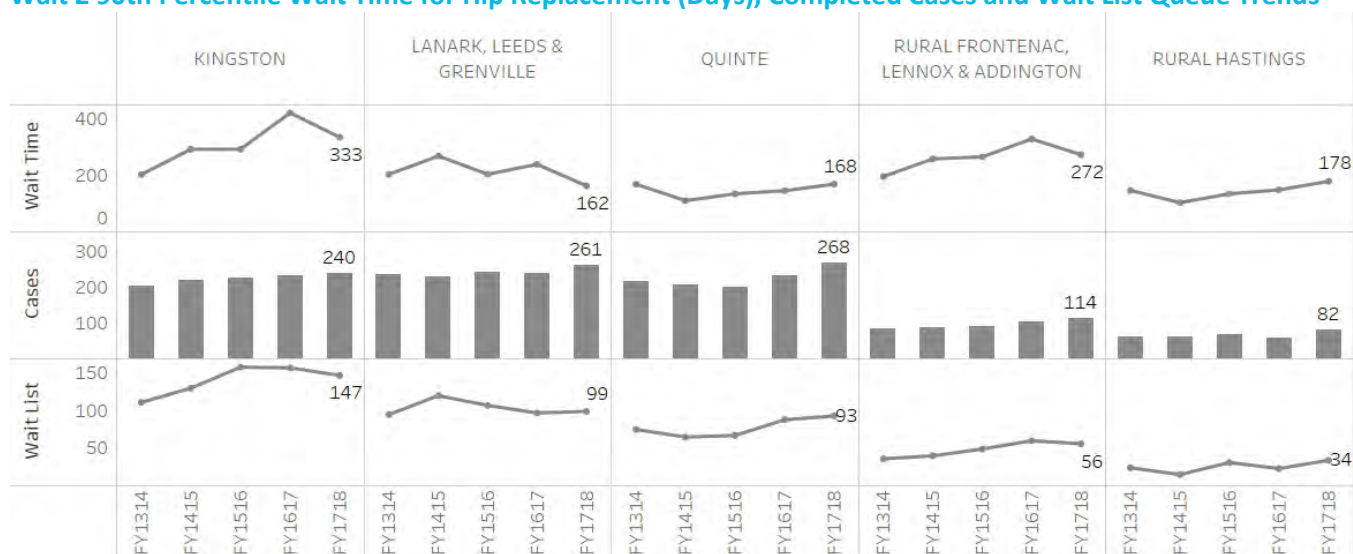


## Hip Replacement

- There were 944 hip replacement surgeries completed in FY 2017-18; 72 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 237 days, 73 days shorter than the previous fiscal.
- In 2017/18, hospitals in the South East LHIN had the 5<sup>th</sup> longest wait time for hip replacement surgery.
- The wait list queue at the start of FY 2017-18 was 409 patients; 24 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Hip Replacement (Days), Completed Cases and Wait List Queue Trends



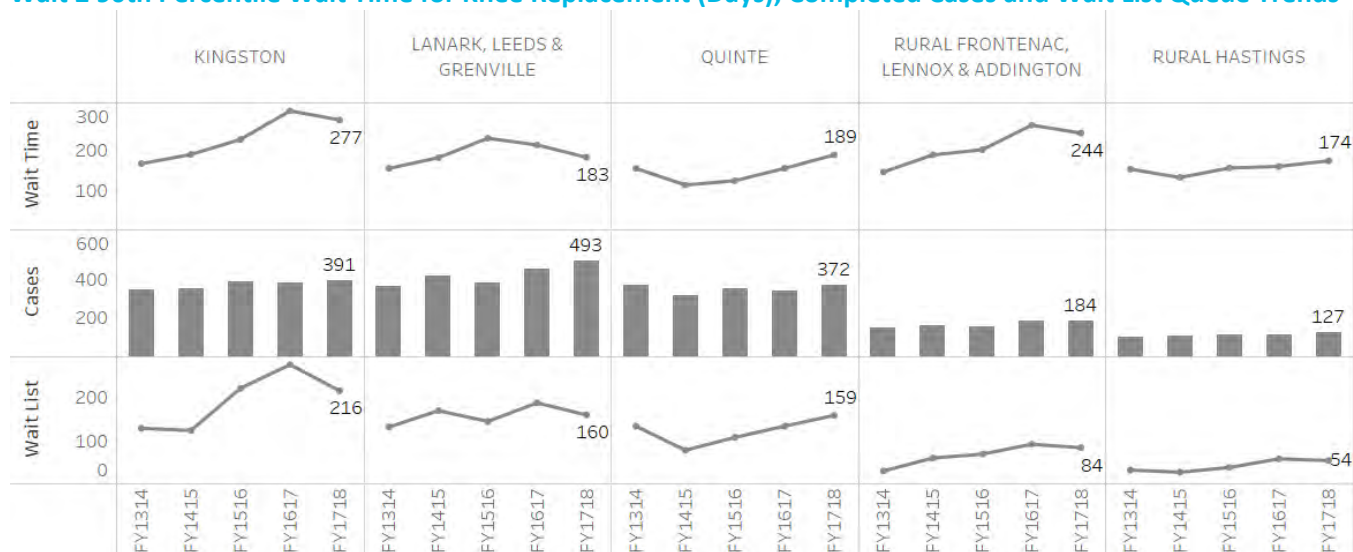
- South East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 162 days to 333 days.

## Knee Replacement

- There were 1,587 knee replacement surgeries completed in FY 2017-18; 91 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 221 days, 17 days shorter than the previous fiscal.
- In 2017/18, hospitals in the South East LHIN had the 6<sup>th</sup> shortest wait time for knee replacement surgery.
- The wait list queue at the start of FY 2017-18 was 659 patients; 84 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Knee Replacement (Days), Completed Cases and Wait List Queue Trends



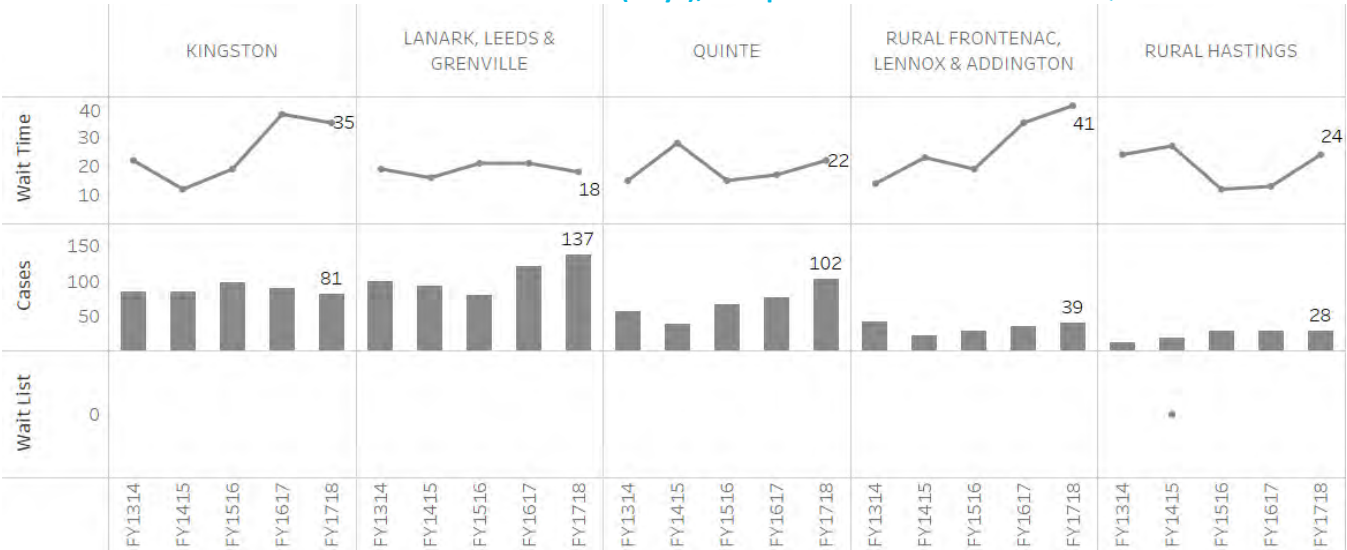
- South East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 174 days to 277 days.

**Paediatric CT**

- There were 265 paediatric CT scans completed in FY 2017-18; 34 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 27 days, 5 days shorter than the previous fiscal.
- In 2017/18, hospitals in the South East LHIN had the 6<sup>th</sup> shortest wait time for paediatric CT scans. [of only 13 reporting]
- The wait list queue at the start of FY 2017-18 was 20 patients; 5 more queued compared to the previous fiscal.

**Sub-Region of Patient Residence Comparison:**

**Wait 2 90th Percentile Wait Time for Paediatric CT (Days), Completed Cases and Wait List Queue Trends**



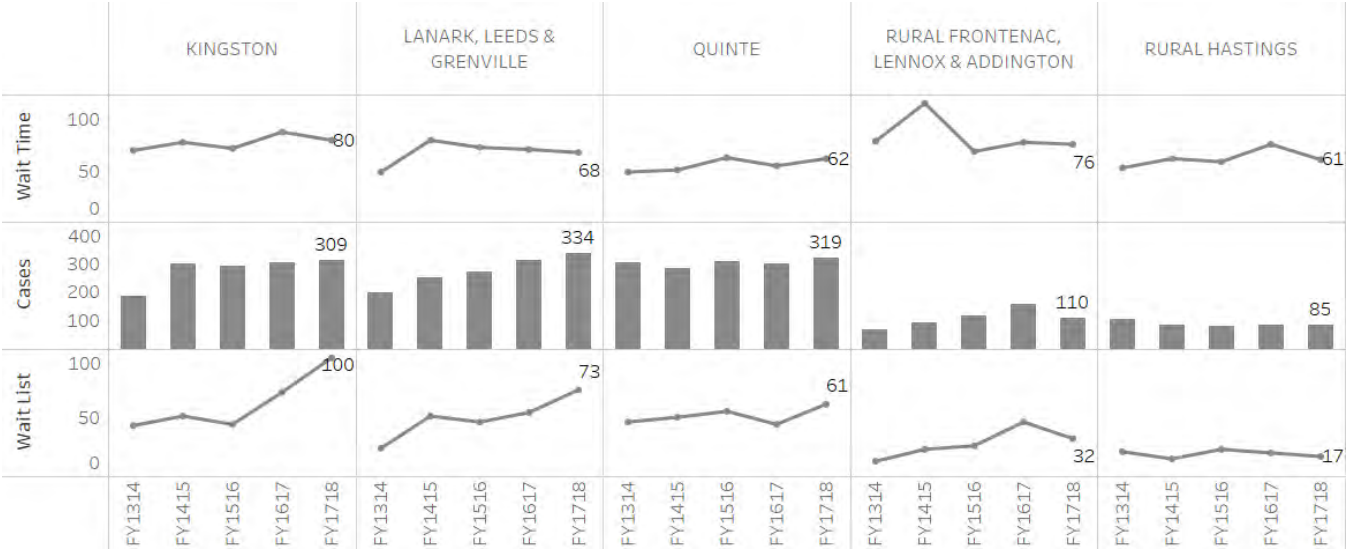
- South East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 18 days to 41 days.

Paediatric MRI

- There 761 paediatric MRI scans completed in FY 2017-18; 59 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 75 days, 6 days longer than the previous fiscal.
- In 2017/18, hospitals in the South East LHIN had the 5<sup>th</sup> shortest wait time for paediatric MRI scans. [of only 13 reporting]
- The wait list queue at the start of FY 2017-18 was 161 patients; 14 more queued compared to the previous fiscal.

Sub-Region of Patient Residence Comparison:

Wait 2 90th Percentile Wait Time for Paediatric MRI (Days), Completed Cases and Wait List Queue Trends



- South East LHIN sub-region (of Patient Residence) variation in FY 2017-18: 61 days to 80 days.

## Oncology and Dialysis

### Ambulatory Oncology Utilization

- In 2016/17, there were 40,073 ambulatory oncology visits to hospital(s) in South East LHIN.
- Since 2014/15, visits in Ontario have increased by 9%. The number of visits to South East LHIN hospitals increased by 9% and visits for South East LHIN residents have decreased by 3%.
- In 2016/17, ambulatory oncology visits per 1,000 population for residents of South East LHIN is 82.9 (Ontario - 75.7).
- Oncology visits per 1,000 population for age group 18-44 years is 8.7 (Ontario - 15.9). The rate is among the 4 lowest visit rates in the province for this age group.
- 4 sub-regions within South East LHIN have among the lowest (bottom 8) visit rates compared to other sub-regions across various age groups:
  - Age group 0-17 years, [Rural Hastings](#) (1.0) (Ontario - 5.0).
  - Age group 18-44 years, [Rural Hastings](#) (7.2), [Rural Frontenac, Lennox & Addington](#) (8.8), [Kingston](#) (7.1), and [Lanark, Leeds & Grenville](#) (6.2) (Ontario - 15.9).
  - Age group 45-64 years, [Lanark, Leeds & Grenville](#) (69.9) (Ontario - 106.7).
  - Age group 65-79 years, [Lanark, Leeds & Grenville](#) (180.3) (Ontario - 255.4).
  - Age group 80+ years, [Lanark, Leeds & Grenville](#) (115.8) (Ontario - 191.6).
- 7% of ambulatory oncology visits by South East LHIN residents were to hospitals outside of South East LHIN.
- 4% of ambulatory oncology visits to South East LHIN hospitals were by non-South East LHIN residents.

Ambulatory Oncology	South East	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory oncology visits	40,073	1,059,358		Increase	
% Inflow oncology visits	3.9%				
<b>LHIN of patient</b>					
Ambulatory oncology visits	41,304	1,057,888		Stable	2,703 -12,891
% Outflow oncology visits	6.7%				
Visits per 1,000 population	82.9	75.7		Stable	65.0 -97.8
Visit rate/1,000 population age 0-17 years	5.1	5.0			1.0 -6.1
Visit rate/1,000 population age 18-44 years	8.7	15.9	<b>Lowest</b>		6.2 -13.3
Visit rate/1,000 population age 45-64 years	100.4	106.7			69.9 -118.1
Visit rate/1,000 population age 65-79 years	243.6	255.4			180.3 -279.4
Visit rate/1,000 population age 80+ years	178.4	191.6			115.8 -227.6

<b>Ambulatory Oncology - Sub-Region</b>	<b>South East</b>	<b>Rural Hastings</b>	<b>Quinte</b>	<b>Rural Frontenac, Lennox &amp; Addington</b>	<b>Kingston</b>	<b>Lanark, Leeds &amp; Grenville</b>
<b>LHIN of hospital</b>						
Ambulatory oncology visits	40,073					
% Inflow oncology visits	3.9%					
<b>LHIN of patient</b>						
Ambulatory oncology visits~	41,304	2,703	12,891	5,623	12,353	7,734
% Outflow oncology visits	6.7%	37.2%	9.8%	2.2%	0.8%	3.8%
Visits per 1,000 population	82.9	77.1	97.8	91.6	81.9	65.0
Visit rate/1,000 population age 0-17 years	5.1	1.0	6.1	5.8	4.7	5.4
Visit rate/1,000 population age 18-44 years	8.7	7.2	13.3	8.8	7.1	6.2
Visit rate/1,000 population age 45-64 years	100.4	90.7	118.1	107.9	111.5	69.9
Visit rate/1,000 population age 65-79 years	243.6	199.5	270.9	278.7	279.4	180.3
Visit rate/1,000 population age 80+ years	178.4	136.7	186.6	208.7	227.6	115.8

### Ambulatory Dialysis Utilization

- In 2016/17, there were 58,306 ambulatory dialysis visits to hospital(s) in South East LHIN.
- Since 2014/15, visits in Ontario have increased by 3%. The number of visits to South East LHIN hospitals increased by 2% and visits for South East LHIN residents have increased by 3%.
- The rate of ambulatory dialysis visits per 1,000 population for residents of South East LHIN is 116.6 (Ontario - 90.4) and is among the 4 highest visit rates in the province. High visit rates were noted for following age groups 0-17 years (2.0 vs Ontario - 1.2), 18-44 years (35.3 vs Ontario - 21.8). These rates are among the 4 highest visit rates in the province for their respective age groups.
  - At sub-region level, residents in age group 18-44 years living in [Rural Hastings](#) sub-region (71.4) (Ontario - 21.8) and age group 80+ years living in [Kingston](#) (717.1) (Ontario - 426.7) have among the highest visit rates compared to other sub-regions in Ontario.
- 4% of ambulatory dialysis visits by South East LHIN residents were to hospitals outside of South East LHIN.
- 4% of ambulatory dialysis visits to South East LHIN hospitals were by non-South East LHIN residents.

*Note: Ambulatory dialysis visit volumes for residents in age group 0-17 are low to none across all sub-regions. Caution should be used when interpreting visit rates in this age group.*

Ambulatory Dialysis	South East	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory dialysis visits	58,306	1,269,794		Increase	
% Inflow dialysis visits	4.2%				
<b>LHIN of patient</b>					
Ambulatory dialysis visits	58,085	1,264,676		Increase	3,303 -21,809
% Outflow dialysis visits	3.9%				
Visits per 1,000 population	116.6	90.4	2 <sup>nd</sup> highest	Increase	75.8 -144.7
Visit rate/1,000 population age 0-17 years	2.0	1.2	4 <sup>th</sup> highest		0.0 -8.5
Visit rate/1,000 population age 18-44 years	35.3	21.8	3 <sup>rd</sup> highest		24.1 -71.4
Visit rate/1,000 population age 45-64 years	119.4	105.3			76.0 -156.0
Visit rate/1,000 population age 65-79 years	279.6	285.3			172.1 -393.0
Visit rate/1,000 population age 80+ years	444.5	426.7			200.7 -717.1

Ambulatory Dialysis - Sub-Region	South East	Rural Hastings	Quinte	Rural Frontenac, Lennox & Addington	Kingston	Lanark, Leeds & Grenville
<b>LHIN of hospital</b>						
Ambulatory dialysis visits	58,306					
% Inflow dialysis visits	4.2%					
<b>LHIN of patient</b>						
Ambulatory dialysis visits~	58,085	3,303	17,755	6,195	21,809	9,023
% Outflow dialysis visits	3.9%	24.9%	1.6%	0.0%	0.1%	12.4%
Visits per 1,000 population	116.6	94.2	134.7	100.9	144.7	75.8
Visit rate/1,000 population age 0-17 years	2.0	0.0	0.0	0.0	0.0	8.5
Visit rate/1,000 population age 18-44 years	35.3	71.4	33.6	34.4	37.4	24.1
Visit rate/1,000 population age 45-64 years	119.4	85.4	138.3	111.9	156.0	76.0
Visit rate/1,000 population age 65-79 years	279.6	172.1	329.5	243.3	393.0	172.3
Visit rate/1,000 population age 80+ years	444.5	278.6	450.9	393.6	717.1	200.7

\*Ranking: Top or bottom 4 ranking in the province, compared to other LHINs.

^ Trend: "Increase/decrease" when there is a change more than 1%, otherwise, "stable"

~ There are some records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables with the LHIN name but as SR unassigned.



## Home Care

### Home Care Patient Referrals

- In 2017/18, there were 34,122 active home care patient referrals in the South East LHIN, which was the third lowest in Ontario.
  - The **Quinte** sub-region had the largest proportion of South East LHIN patient referrals in 2017/18 at 10,474.
  - Across Ontario's sub-regions, **Rural Hastings** had the seventh lowest number of active patient referrals with 2,573.

### Active Patient Referrals 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
Kingston	7,605	8,208	8,781	
Leeds, Lanark & Grenville	7,269	7,709	8,028	
Quinte	8,834	9,537	10,474	
Rural Frontenac, Lennox & Addington	2,868	3,149	3,280	
Rural Hastings	2,162	2,269	2,573	7 <sup>th</sup> lowest
Out of LHIN Region	426	457	485	
Unknown Region	1,157	963	501	
SE Total	30,321	32,292	34,122	

\*Rank based on 2017/18 active patient referrals

### Home Care Referral Rate

- In 2017/18, South East LHIN's utilization rate was the **highest** in the province at 67.9 referrals per 1,000 (compared to 48.2 for Ontario).
  - Within the LHIN, the utilization rate ranged from 53.4 referrals per 1,000 in **Rural Frontenac, Lennox & Addington** to 79.4 in **Quinte**.
  - Across Ontario's sub-regions, the utilization rates for **Quinte** (79.4) and **Rural Hastings** (73.4) were the **highest** and fifth highest rates in the province.

### Referrals (per 1,000 population) 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
Kingston	50.9	54.4	58.2	
Lanark, Leeds & Grenville	61.2	64.8	67.5	
Quinte	67.2	72.3	79.4	Highest
Rural Frontenac, Lennox & Addington	47.0	51.3	53.4	
Rural Hastings	61.9	64.7	73.4	5 <sup>th</sup> highest
SE Total	61.2	64.8	67.9	

\*Rank based on 2017/18 utilization rates

## Home Care Services

- In South East LHIN, there were 576,845 home care visits and 1,393,443 service hours in 2017/18.
- The rate of home care visits was 1,148.6 per 1,000 population and the rate of service hours was 2,774.6 per 1,000 population.
- South East had the 2<sup>nd</sup> highest physiotherapy visits per 1,000 population, highest occupational therapy visits per 1,000 population, and highest personal support visits per 1,000 population.
- The following sub-regions had among the eight highest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - Rural Hastings had the 5<sup>th</sup> highest rate of nursing shift hours.
  - Rural Hastings had the 7<sup>th</sup> highest rate of total hours.
  - Rural Hastings had the 4<sup>th</sup> highest rate of nursing visits.
  - Rural Hastings had the 2<sup>nd</sup> highest rate of occupational therapy visits.
  - Rural Hastings had the 8<sup>th</sup> highest rate of physiotherapy visits.
  - **Rural Hastings had the highest rate of social work visits.**
  - Rural Hastings had the 5<sup>th</sup> highest rate of total visits rate.
  - **Quinte had the highest rate of occupational therapy visits.**
  - Quinte had the 6<sup>th</sup> highest rate of physiotherapy visits.
  - Quinte had the 2<sup>nd</sup> highest rate of social work visits.
  - Quinte had the 7<sup>th</sup> highest rate of total visits rate.
  - Quinte had the 6<sup>th</sup> highest rate of nutrition visits.
  - Quinte had the 7<sup>th</sup> highest rate of speech language therapy visits.
  - Kingston had the 5<sup>th</sup> highest rate of occupational therapy visits.
  - **Kingston had the highest rate of physiotherapy visits.**
  - Kingston had the 4<sup>th</sup> highest rate of social work visits.
  - Lanark, Leeds & Grenville had the 3<sup>rd</sup> highest rate of total hours.
  - Lanark, Leeds & Grenville had the 4<sup>th</sup> highest rate of personal support hours.
  - Lanark, Leeds & Grenville had the 4<sup>th</sup> highest rate of occupational therapy visits.
  - Lanark, Leeds & Grenville had the 4<sup>th</sup> highest rate of physiotherapy visits.
  - Lanark, Leeds & Grenville had the 8<sup>th</sup> highest rate of social work visits.
  - Lanark, Leeds & Grenville had the 8<sup>th</sup> highest rate of nutrition visits.
- The following sub-regions had among the eight lowest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - Rural Frontenac, Lennox & Addington had the 7<sup>th</sup> lowest rate of nursing shift hours.
  - Kingston had the 8<sup>th</sup> lowest rate of nursing shift hours.
- Between 2014/15 and 2017/18 there was an increase in total visits of 20.1% and a decrease in total hours of 3.7% in South East LHIN. During this period nursing visits increased by 18.4%, physiotherapy visits increased by 36.8%, occupational therapy visits increased by 21.8%, case management visits increased by 18.2% and nursing shift hours increased by 30.1%.
- Between 2014/15 and 2017/18 nursing visits rate increased by 16.5%, physiotherapy visit rate increased by 34.6%, occupational therapy visit rate increased by 19.8%, case management visit rate increased by 16.3% and nursing shift hours rate increased by 28.0%.

## Summary of Home Care Service by Type, South East LHIN, 2017/18

	South East LHIN Residents	Ontario Residents*	Comments	LHIN % Change 2014/15 to 2017/18	Range across SE sub-regions**
<b>Service Visits</b>					
<b>All Visits†</b>	576,845	11,528,751		20.1%	46,740-169,916
Nursing Visit	367,377	7,539,458		18.4%	31,045-108,770
Physiotherapy	46,531	738,685		36.8%	2,871-17,163
Occupational Therapy	46,976	615,215		21.8%	3,636-15,483
Social Work	7,652	56,973	2 <sup>nd</sup> highest	58.6%	573-2,448
Nutrition and Dietetic	3,012	47,949		37.0%	233-972
Speech Language Pathology	12,300	273,735		1.8%	917-4,304
Case Management	92,614	2,211,107		18.2%	7,278-28,351
<b>Service Hours</b>					
<b>All Hours</b>	1,393,443	34,396,919		-3.7%	98,052-396,835
Nursing Shift	57,933	2,366,020		30.1%	3,822-24,311
Personal Support Work and Homemaking	1,323,467	31,319,568		-5.6%	93,585-377,848
Respite	12,044	711,331		n/a	645-4,536
<b>Service Visits per 1,000 population</b>					
<b>All Visits per 1,000 population †</b>	1,148.6	810.2		18.2%	900.3-1,333.3
Nursing Visit	731.5	529.8		16.5%	605.3-885.6
Physiotherapy	92.7	51.9	2 <sup>nd</sup> highest	34.6%	48.7-113.8
Occupational Therapy	93.5	43.2	Highest	19.8%	66.7-117.4
Social Work	15.2	4.0	Highest	56.0%	9.3-21.7
Nutrition and Dietetic	6.0	3.4		34.8%	4.7-7.4
Speech Language Pathology	24.5	19.2		0.2%	18.4-32.6
Case Management	184.4	155.4		16.3%	146.6-215.1
<b>Service Hours per 1,000 population</b>					
<b>All Hours</b>	2,774.6	2,417.3	2 <sup>nd</sup> highest	-5.2%	1,597.1-3,335.8
Nursing Shift	115.4	166.3		28.0%	62.2-278.0
Personal Support Work and Homemaking	2,635.3	2,201.0	Highest	-7.1%	1,524.4-3,093.3
Respite	24.0	50.0		n/a	10.5-55.2

\*Not all LHINs offer the same services or report case management services in the same manner.

\*\*Service rates per 1,000 population are calculated using 2017/18 service levels divided by 2016 population estimates from the Ministry of Finance. Typically 2017 population estimates would be used but they were not available at the sub-region level at time of calculation.

†Includes visits for respiratory, psychology, and 'other' service types (not shown), which are not consistently reported/available in all LHINs.

n/a – not applicable due to significant changes in funding and recording

## Palliative Care

### Services Received at Home by Palliative Patients FY 2016/2017

	Provincial Ranking	LHIN	Range Across SE sub-regions
Percent of patients who received palliative home visits(home servicers or physician) in the last 90 days of life	3	32%	29% to 36%
Percent of patients who received palliative home servicers in the last 90 days of life	2	20%	17% to 28%
Percent of patients who had physician home visits in the last 90 days of life	5	26%	22% to 31%
Percent of patients who receive palliative home services who died in hospital	1	18%	12% to 29%
Percent of palliative care patients discharged home from hospital with the discharge status "Home with Support"	10	86%	83% to 90%
Mean days spent at home/residence in last 6 months of life	10	163 days	160 to 166 days

*†Ranking in the province, compared to other LHINs.*

### Interpretation

- In 2016/2017, 32% of patients in South East LHIN received palliative home visits in the last 90 days of life, which is lower than the provincial value of 36%.
  - Within the South East LHIN, the [Lanark, Leeds & Grenville](#) sub-region reported 29% of patients received palliative home visits in the last 90 days of life, which appears to be increasing on mean of 5.9% per year, since 2013/2014. The [Quinte](#) sub-region had the highest percentage at 36%, matching the provincial value.
- In 2016/2017, the percent of patients in South East LHIN who received palliative home servicer visits in the last 90 days of life was notably lower than the province (20% vs 25%, respectively)..
  - [Rural Hastings](#) sub-region reported 28% patients received home servicer visits in the last 90 days of life, which was the highest percentage in the South East LHIN. [Lanark, Leeds & Grenville](#) sub-region reports the lowest percentage among the sub-regions at 17%.
- In the South East LHIN, the percentage of patients who received physician home visits in the last 90 days of life was 26%, which is 2% lower than the provincial value.
  - [Quinte](#) sub-region reported the highest percentage at 31%. [Lanark, Leeds & Grenville](#) reported the lowest percentage of patients who received physician home visit in the last 90 days of life at 21%.
- Across Ontario, South East LHIN reported that 18% of patients who received palliative home services who died in hospital, which is first among the 14 LHINs.
  - There is dramatic variation of percentages of patients who received palliative care who died in hospital across South East sub-regions. The [Quinte](#) sub-region has the lowest percentage of palliative patients dying in hospital at 12%. On the other hand, [Rural Frontenac, Lennox & Addington](#) reports 29% of patients who received palliative care died in hospital.

- Across LHINs, South East reports that 86% of palliative care patients discharged home with “Home with Supports” status in 2016/2017, slightly higher than the provincial 85%.
  - Within South East, the sub-regions vary from 83% in [Kingston](#) sub-region to 90% in [Quinte](#) sub-region regarding palliative patients discharged with “Home with Supports” status.
- South East LHIN’s mean number of days at home among palliative patients in the last 6 months across all LHINs was 163 days, which is greater than the provincial value of 160 days.
  - South East sub-regions vary in mean number of days that palliative patients spend at home in their last 6 months, ranging from 160 days in [Kingston](#) sub-region to 166 days in [Quinte](#) sub-region.

#### Palliative Hospital System Measures, South East (FY 2016/17)

	Provincial Ranking	LHIN	Range Across the sub-regions
Percent of patients who had one or more unplanned ED visits in the last 30 days of life	9	55%	49% - 59%
Percent of patients who had two or more unplanned ED visits in the last 30 days of life	14	19%	14% - 22%
Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days	11	24%	14% - 30%
Percent of people who die in hospital (all hospital settings and acute only)	6	50%	44% - 57%
Percent of people who die in acute hospital	6	42%	38% - 46%
Percent of patients who had two or more acute inpatient admissions in the last 30 days of life	9	6%	5% - 7%

#### LHIN Comparison

- South East LHIN was **significantly lower** than the province in percent of people who died in hospital (all hospital settings and acute only) and percent of people who died in acute hospital. It was **significantly higher** than the province in percent of patients who had two or more unplanned ED visits in the last 30 days of life and percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days.
  - For percent of patients who had one or more unplanned ED visits in the last 30 days of life, [Kingston](#) sub-region was **significantly lower** than the province.
  - For percent of patients who had two or more unplanned ED visits in the last 30 days of life, the following sub-regions were **significantly higher** than the province: [Rural Hastings](#), [Quinte](#), [Rural Frontenac](#), [Lennox & Addington](#), and [Lanark, Leeds & Grenville](#).
  - For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, [Lanark, Leeds & Grenville](#) sub-region was **significantly higher** than the province.

- For percent of people who died in hospital (all hospital settings and acute only), **Rural Hastings** and **Quinte** sub-regions were **significantly lower** than the province. Lanark, Leeds & Grenville was **significantly higher**.
- For percent of people who died in acute hospital, **Quinte** and **Kingston** sub-regions were **significantly lower** than the province.

### Change Over Time

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of 0% was observed across the South East LHIN ranking 4th provincially.
  - Across sub-regions, **Lanark, Leeds & Grenville** (1%) and **Rural Frontenac, Lennox & Addington** (-1%) were observed highest and lowest, respectively.
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of 1% was observed across the South East LHIN ranking 4th provincially.
  - Across sub-regions, **Quinte** (5%) and **Rural Hastings** (-5%) were observed highest and lowest, respectively.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, a mean annual growth rate of -1% was observed across the South East LHIN ranking 9th provincially.
  - Across sub-regions, **Rural Hastings** (6%) and **Rural Frontenac, Lennox & Addington** (-8%) were observed highest and lowest, respectively.
- For percent of people who die in hospital (all hospital settings and acute only), a mean annual growth rate of -1% was observed across the South East LHIN ranking 3<sup>rd</sup> provincially.
  - Across sub-regions, **Lanark, Leeds & Grenville** (0%) and **Rural Frontenac, Lennox & Addington** (-4%) were observed highest and lowest, respectively.
- For percent of people who die in acute hospital, a mean annual growth rate of 0% was observed across the South East LHIN ranking 2nd provincially.
  - Across sub-regions, **Lanark, Leeds & Grenville** (1%) and **Rural Frontenac, Lennox & Addington** (-5%) were observed highest and lowest, respectively.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, a mean annual growth rate of 2% was observed across the South East LHIN ranking 3rd provincially.
  - Across sub-regions, **Quinte** (10%) and **Rural Hastings** (-6%) were observed highest and lowest, respectively.

## Emergency Department

### Emergency Department Utilization

- In 2016/17, there were 308,479 ED visits to South East LHIN hospitals, an increase of 5.2% from 2013/14. In the same time-period, the number of ED visits in the province increased by 6.5%.
- South East's crude ED visit rate of 629.9 ED visits per 1,000 population was 3<sup>rd</sup> highest in the province, higher than the provincial rate (442.2). This represented a 4.8% increase in crude visit rate in the LHIN from 2013/14 during which time the provincial crude visit rate climbed by 3.0%.
- Age adjusted ED visit rates per 1,000 population were highest for seniors 80+ at 1,058 visits per 1,000 population, following by children aged 0-17 (694 visits / 1,000 population), adults aged 18-44 years (644 visits per 1,000 population), seniors aged 65-79 (616 visits per 1,000 population) while adults aged 45-64 years had the lowest usage rate in LHIN at 511 visits per 1,000 population, or less than half of the highest user age group.
  - [Kingston](#) residents had the lowest ED visit rate of South East's 5 sub-regions, at 588 visits per 1000 population.
  - [Rural Hastings](#) sub-region had the highest crude ED visit rate in the LHIN at 674 visits per 1,000 population.
  - Overall, 5 of South East's 5 sub-regions had crude ED visit rates above the provincial value, while none had rates below the provincial value.
- Between 2013/14 and 2016/17 the number of South East LHIN residents visiting the ED with lower acuity levels (CTAS IV and V) increased 1.9% to 139,097 visits. During this same time-period, visits by Ontario residents with CTAS IV and V declined 2.2%.
- Between 2013/14 and 2016/17 the number of visits with CTAS III increased by 5.5% and CTAS I & II increased by 22.9%, while provincially these numbers increased by 9.4% and 15.8% respectively.
- Overall, South East LHIN ranked 2<sup>nd</sup> highest in the province in proportion of ED visits by residents that were lower acuity (44.3% for South East, and 33.5% for the province).
  - 5 out of 5 of South East's sub-regions had a higher proportion of ED visits with lower acuity (CTAS IV and V) than the province.
  - [Lanark, Leeds & Grenville](#) had the lowest proportion of ED visits with lower acuity of the LHIN's 5 sub-regions, at 40.3%, while [Rural Frontenac, Lennox & Addington](#) had the highest at 50.5%.
- The most common causes for ED visits by South East LHIN residents were diseases or disorders of the ear, nose or throat, diseases or disorders of the skin & breast, and diseases or disorders of the digestive system and accounted for 9.9%, 9.2%, and 9.0% of ED visits by South East LHIN residents respectively.
- Follow-up examinations and other non-emergent conditions ranked 5<sup>th</sup> as a cause of ED visits and accounted for 5.8% of ED visits by South East LHIN residents.
- 14.6% of the patients who visited ED in South East LHIN hospitals arrived via ambulance in FY16/17, as compared to 15.6% for the province.
  - The proportion of ED visits that arrived by ambulance ranged from a low of 12.3% in [Rural Frontenac, Lennox & Addington](#) sub-region to a high of 15.5% in [Kingston](#).
- 8.0% of the patients who visited ED in South East LHIN hospitals were admitted in FY16/17, as compared to 9.8% for the province.
  - The proportion of ED visits that resulted in a patient being admitted to hospital ranged from a low of 7.1% in [Quinte](#) sub-region to a high of 9.4% in [Lanark, Leeds & Grenville](#).
- 4.4% of the patients who visited ED in South East LHIN hospitals left without completing treatment in FY16/17, as compared to 3.9% for the province. South East ranked 4<sup>th</sup> in the province in visits that left without completing treatment.

- 6.6% of ED visits to South East LHIN hospitals were by patients who did not reside in South East LHIN (inflow). This compares to 8.2% of ED visits by South East LHIN residents that were accessed in other LHINs (outflow).

#### Top 10 Reasons for Emergency Department Visits by LHIN, 2016/17

Leading CACS groups, by LHIN of patient	South East	
	#	% of total visits
(B112) Disease or Disorder Ear, Nose or Throat	31,082	9.9%
(B132) Disease or Disorder Skin & Breast	28,774	9.2%
(B128) Disease or Disorder Digestive System	28,317	9.0%
(B136) Disease or Disorder Musculoskeletal and Connective Tissue	18,493	5.9%
(B187) Follow-up Examination and Other Non Emergent Condition	18,052	5.8%
(B180) Contusion, Dislocation, Nerve & Other Soft Tissue Injury	17,381	5.5%
(B116) Disease or Disorder Respiratory System	17,100	5.5%
(B122) Other Disease or Disorder Cardiac System	15,339	4.9%
(B005) Other Condition with Acute Admission/Transfer	13,506	4.3%
(A002) Left without being seen or Triage and not seen	12,073	3.8%

Measure—LHIN of Hospital	South East		Ontario	
	#	LHIN % change 2013/14-2016/17	#	Ontario % change 2013/14-2016/17
Visits	308,479	5.2%	6,312,121	6.5%
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	47,506	23.5%	1,284,741	15.9%
III (urgent)	122,985	4.9%	2,876,687	9.6%
IV & V (less urgent/non urgent)	137,403	1.0%	2,128,914	-2.0%
<b>% visits by CTAS level†</b>				
I & II (resuscitation/emergent)	15.4%		20.4%	
III (urgent)	39.9%		45.6%	
IV & V (less urgent/non urgent)	44.5%		33.7%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	14.6%		15.6%	
% of visits that were admitted	8.0%		9.8%	
% of visits that left without completing treatment	4.4%		3.9%	
<b>% Inflow visits</b>	6.6%			



Measure—LHIN of Patient	South East		Ontario	
	#	LHIN % change 2013/14-2016/17	#	Ontario % change 2013/14-2016/17
Visits	313,682	5.9%	6,183,151	6.4%
ED visit rate/1,000 population	629.9	4.8%	442.2	3.0%
<b>Age-specific ED visit rates per 1,000 population</b>				
ED visit rate, age 0-17 years	694		429	
ED visit rate, age 18-44 years	644		411	
ED visit rate, age 45-64 years	511		388	
ED visit rate, age 65-79 years	616		516	
ED visit rate, age 80+ years	1,058		913	
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	48,362	22.9%	1,265,237	15.8%
III (urgent)	125,660	5.5%	2,825,385	9.4%
IV & V (less urgent/non urgent)	139,097	1.9%	2,070,962	-2.2%
<b>% visits by CTAS level</b>				
I & II (resuscitation/emergent)	15.4%		20.5%	
III (urgent)	40.1%		45.7%	
IV & V (less urgent/non urgent)	44.3%		33.5%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	14.4%		15.8%	
% of visits that were admitted	8.1%		9.9%	
% of visits that left without completing treatment	4.4%		3.8%	
% Outflow visits	8.2%			

# ED Visit Utilization Summary, by sub-region of Patient Residence, 2016/17 South East LHIN

	Rural Hastings	Quinte	Rural Frontenac, Lennox & Addington	Kingston	Lanark, Leeds & Grenville	LHIN	Ontario
<b>Sub-Region of Patient Residence</b>							
Visits	23,633	85,461	38,660	88,665	77,263	313,682	6,183,151
ED visit rate/1,000 population	674	648	630	588	649	629.9	442
% Outflow to other LHINs	31.1%	6.0%	3.7%	2.2%	12.6%	8.2%	
<b>Age-specific ED visit rates per 1,000 population</b>							
ED visit rate, age 0-17 years	726	661	717	699	702	694	429
ED visit rate, age 18-44 years	732	694	639	567	699	644	411
ED visit rate, age 45-64 years	546	529	499	479	521	511	388
ED visit rate, age 65-79 years	673	621	665	563	619	616	516
ED visit rate, age 80+ years	1043	1057	1098	1030	1079	1,058	913
<b># visits by CTAS level</b>							
# CTAS Level I & II visits	3734	15387	4460	11592	13189	48,362	12715
# CTAS Level III visits	10169	34903	14630	33287	32671	125,660	20741
# CTAS Level IV & V visits	9719	35155	19523	43572	31128	139,097	13353
<b>% visits by CTAS level</b>							
I & II (resuscitation/emergent)	15.8%	18.0%	11.5%	13.1%	17.1%	15.4%	20.5%
III (urgent)	43.0%	40.8%	37.8%	37.5%	42.3%	40.1%	45.7%
IV & V (less urgent/non urgent)	41.1%	41.1%	50.5%	49.1%	40.3%	44.3%	33.5%
<b>Other visit characteristics</b>							
% of visits that arrived by ambulance	13.5%	14.5%	12.3%	15.5%	14.2%	14.4%	15.8%
% of visits that were admitted	7.4%	7.1%	7.3%	8.5%	9.4%	8.1%	9.9%
% of visits that left without completing treatment	4.1%	5.3%	5.7%	3.5%	3.9%	4.4%	3.8%

## Emergency Department Performance

- Emergency department (ED) volumes increased steadily from fiscal year 2013/14 (293,321 visits) to 2017/18 (322,258 visits). South East LHIN sites ranged from 13,761 to 62,256 ED visits in fiscal year 2017/18.
- The 90<sup>th</sup> percentile ambulance offload time increased from seven minutes in fiscal year 2013/14 to ten minutes in fiscal year 2017/18 with a range of five to 18 minutes across South East LHIN sites in fiscal year 2017/18.
- The 90<sup>th</sup> percentile time to physician initial assessment (PIA) remained at three hours from fiscal year 2013/14 to fiscal year 2017/18, with South East LHIN sites ranging from two to three hours in fiscal year 2017/18. The percentage of time to PIA within two hours decreased from 79% in fiscal year 2013/14 to 76% in fiscal year 2017/18, with South East LHIN sites ranging from 54% to 87% in fiscal year 2017/18.
- The 90<sup>th</sup> percentile consult request to arrival time remained stable from fiscal year 2013/14 to fiscal year 2017/18, both being three hours, with South East LHIN sites having a range of zero to three hours in fiscal year 2017/18. The percentage of consults within two hours from request increased from fiscal year 2013/14 (81%) to fiscal year 2017/18 (84%) with South East LHIN sites ranging from 78% to 99%.
- The 90<sup>th</sup> percentile time to disposition remained stable (six hours) from fiscal year 2013/14 to fiscal year 2017/18, with South East LHIN sites ranging from four to eight hours in fiscal year 2017/18.
- The 90<sup>th</sup> percentile ED length of stay remained stable (seven hours) from fiscal year 2013/14 to fiscal year 2017/18, with South East LHIN sites ranging from four to 11 hours in fiscal year 2017/18.
- Non-admitted low acuity ED volumes increased overall from fiscal year 2013/14 (134,468) to 2017/18 (138,215), with South East LHIN sites ranging from 5,695 to 37,062 in fiscal year 2017/18.
- For non-admitted low acuity visits, the ED length of stay and 90<sup>th</sup> percentile time to disposition both remained stable (four hours) over time from fiscal year 2013/14 to 2017/18, with South East LHIN sites having a range of three to five hours for time to disposition and three to six hours for length of stay in fiscal year 2017/18.
- The percent of non-admitted low acuity visits within target of four hours overall decreased slightly over time, from 88% in fiscal year 2013/14 to 86% in 2017/18. In fiscal year 2017/18, South East LHIN sites ranged from 69%-96%.
- The volumes of non-admitted high acuity ED visits increased steadily over time from fiscal year 2013/14 (134,157) to 2017/18 (157,439), with South East LHIN sites ranging from 7,774 visits to 33,917 visits in fiscal year 2017/18.
- For non-admitted high acuity visits from fiscal year 2013/14 to 2017/18, the 90<sup>th</sup> percentile time to disposition (six hours) remained stable, ED length of stay decreased from seven to six hours and percentage within target of eight hours increased from 94% to 95%. In fiscal year 2017/18, South East LHIN sites ranged from five to eight hours for both 90<sup>th</sup> percentile time to disposition and length of stay, and ranged from 92% to 98% for percent within target of eight hours for non-admitted high acuity visits.
- The volumes of ED admissions had also increased steadily over time from fiscal year 2013/14 (23,297) to fiscal year 2017/18 (26,054), while South East LHIN sites ranged from 292 to 11,770 visits in fiscal year 2017/18. Across all years, the admission rates increased with acuity across all CTAS levels.
- The 90<sup>th</sup> percentile time to disposition for ED admissions had remained stable over time; remaining 11 hours in both fiscal years 2013/14 and 2017/18, with South East LHIN sites ranging from seven to 19 hours in fiscal year 2017/18.
- The 90<sup>th</sup> percentile time to inpatient bed was 17 hours in both fiscal years 2013/14 and 2017/18, while the 90<sup>th</sup> percentile ED length of stay decreased overall from 25 hours to 24 hours during this timeframe for admitted ED visits. In fiscal year 2017/18, the 90<sup>th</sup> percentile for South East LHIN sites ranged from five to 28 hours for the time to inpatient bed and from 12 to 35 hours for ED length of stay.
- The percentage of ED admissions within target of eight hours decreased from fiscal year 2013/14 (52%) to

2017/18 (49%), with South East LHIN sites ranging from 40% to 74% in fiscal year 2017/18.

## Emergency department visits, South East LHIN

Measure	Fiscal Year					Range across sites, FY 17/18
	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	
All emergency department visits						
ED Volumes (All)	293,321	303,800	307,341	308,479	322,258	13,761 - 62,256
Ambulance Offload Time - 90th Percentile (mins)	7	8	9	10	10	5 - 18
Time to PIA - 90th percentile	3	3	3	3	3	2 - 4
% with Time to PIA <= 2 Hours	79%	78%	77%	77%	76%	54% - 87%
Consult Request to Arrival - 90th Percentile	3	3	3	3	3	0 - 3
% of Consults with Consult Request to Arrival <= 2 Hrs	81%	81%	82%	83%	84%	78% - 99%
Time to Disposition (All) - 90th Percentile	6	6	6	6	6	4 - 8
ED LOS - 90th Percentile	7	7	7	7	7	4 - 11
Non-admitted low acuity ED visits						
ED Volumes - Non-Admitted Low Acuity	134,468	138,714	137,993	135,867	138,215	5,695 - 37,062
% Within Target of 4 Hrs - Non-Admitted Low Acuity	88%	88%	87%	86%	86%	69% - 96%
Time to Disposition for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	4	3 - 5
ED LOS for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	4	3 - 6
Non-admitted high acuity ED visits						
ED Volumes - Non-Admitted High Acuity	134,157	140,394	144,601	147,412	157,439	7,774 - 33,917
% Within Target of 8 Hrs - Non-Admitted High Acuity	94%	94%	95%	95%	95%	92% - 98%
Time to Disposition for Non-Admitted High Acuity - 90th Percentile	6	6	6	6	6	5 - 8
ED LOS for Non-Admitted High Acuity - 90th Percentile	7	7	6	7	6	5 - 8
Admitted ED visits						
ED Volumes - Admitted	23,297	24,281	24,353	24,718	26,054	292 - 11,770
Admission Rate - CTAS 1	46%	46%	46%	47%	49%	0% - 70%
Admission Rate - CTAS 2	23%	23%	22%	21%	21%	0% - 34%
Admission Rate - CTAS 3	11%	11%	10%	10%	10%	0% - 20%
Admission Rate - CTAS 4	1%	1%	1%	1%	1%	0% - 4%
Admission Rate - CTAS 5	0%	0%	0%	0%	0%	0% - 1%
Time to Disposition for Admitted - 90th Percentile	11	12	11	12	11	7- 19
ED LOS for Admitted - 90th Percentile	25	27	26	29	24	12 - 35
% Within Target of 8 Hrs - Admitted	52%	48%	50%	47%	49%	40% - 74%
Time to Inpatient Bed - 90th Percentile	17	19	19	21	17	5 - 28

## Acute Care

### Acute Care Utilization by Residents of the South East LHIN

#### Acute Separations

- In 2016/17, there were 43,065 acute separations (discharges), 234,634 acute days, and 280,186 total days (including acute and alternate level of care days) for South East LHIN residents.
- The acute separation rate for South East LHIN residents was 87 separations per 1,000 residents in 2016/17 but varied substantially by sub-region of patient residence.
  - Rates were the lowest for residents of the [Kingston](#) sub-region and highest for residents of Lanark Leeds & Grenville.
- From 2013/14 to 2016/17, the overall acute separation rate for South East LHIN residents increased by 4.8%.
  - By sub-region, [Rural Hastings](#) had the 6<sup>th</sup> lowest volume of separations by sub-region of patient (3,298).

#### Acute Days

- The rate of acute days for South East LHIN residents was 471 acute days per 1,000 residents in 2016/17.
  - Rates were the lowest for residents of the [Quinte](#) sub-region (429) and highest for Lanark Leeds & Grenville (559) in 2016/17.

#### Mean Length of Stay

- The mean total length of stay (including acute days and days waiting for an alternate level of care) for South East LHIN residents was 6.5 days, while the mean acute length of stay was 5.5 days in 2016/17.

#### HIG Weight

- The Ontario HBAM Inpatient Grouper (HIG) (similar to CMG+) aggregates acute care separations with similar resource use and clinical characteristics based on most responsible diagnosis and/or principal intervention. The HIG weight is a relative cost value that reflects the resources consumed during each acute care stay. The mean HIG weight for South East LHIN residents increased from 1.63 2014/15 to 1.69 in 2016/17 – a change of 3.7%. South East LHIN residents had the highest mean HIG weight among LHINs.
- The top 3 HIGs accounting for the highest proportion of acute care days for South East LHIN residents in 2016/17 were: 196-heart failure without coronary angiogram, 139-chronic obstructive pulmonary disease without lower respiratory infection, and 026-ischemic event of central nervous system.

### Acute Care Hospital Utilization (Excluding ALC) LHIN of Patient, South East LHIN, 2016/17

	South East LHIN Residents	Ontario Residents*	Rank among LHINs	Range across SE sub-regions
<b>Acute Care Measures</b>				
Total Population	498,004	13,982,984		35,057 – 150,759
Acute Separations	43,065	1,028,979		3,298 – 11,637
Acute Separation Rate per 1,000 Population	87	74		77 - 98
Acute Days	234,634	5,455,693		17,140 – 66,890
Acute Days Rate per 1,000 Population	471	390		429 – 559
Total Days	280,186	6,477,528		19,015 – 87,320
Total Days Rate per 1,000 Population	563	463		474 – 559
Mean Acute LOS	5.5	5.3		5.0 – 5.7
Mean Total LOS	6.5	6.3		5.5 – 7.5
Mean HIG Weight	1.69	1.55	Highest	—
<b>Leading HIGs (Acute Care Days)†</b>				
(196) Heart Failure w/o Coronary Angiogram	6,064	175,995		411 – 1,831
(139d) Chronic Obstructive Pulmonary Disease without Lower Respiratory Infection	5,530	78,801		508 – 1,568
(026) Ischemic Event of Central Nervous System	4,769	96,544		222 – 1,411

\* Ontario residents exclude Out-of-province

† Leading HIGs include Out-of-province for Ontario Values

### Acute Care Utilization for South East LHIN Facilities

- There were 40,264 acute separations, 219,333 acute days, and 264,915 total days at South East LHIN hospitals in 2016/17.

#### Separations

- Separations increased by 4.0% between 2013/14 and 2016/17. During this same period, for Ontario hospitals overall, separations increased by 3.8%.

#### Acute Days

- Acute days increased by 4.2% between 2013/14 and 2016/17. Acute days increased by 2.2%, for all Ontario hospitals overall, during this same period.
- Mean acute length of stay for 2016/17 at hospitals in the South East LHIN was 5.5 days. This is higher than the provincial result of 5.3 days.

#### Total Days

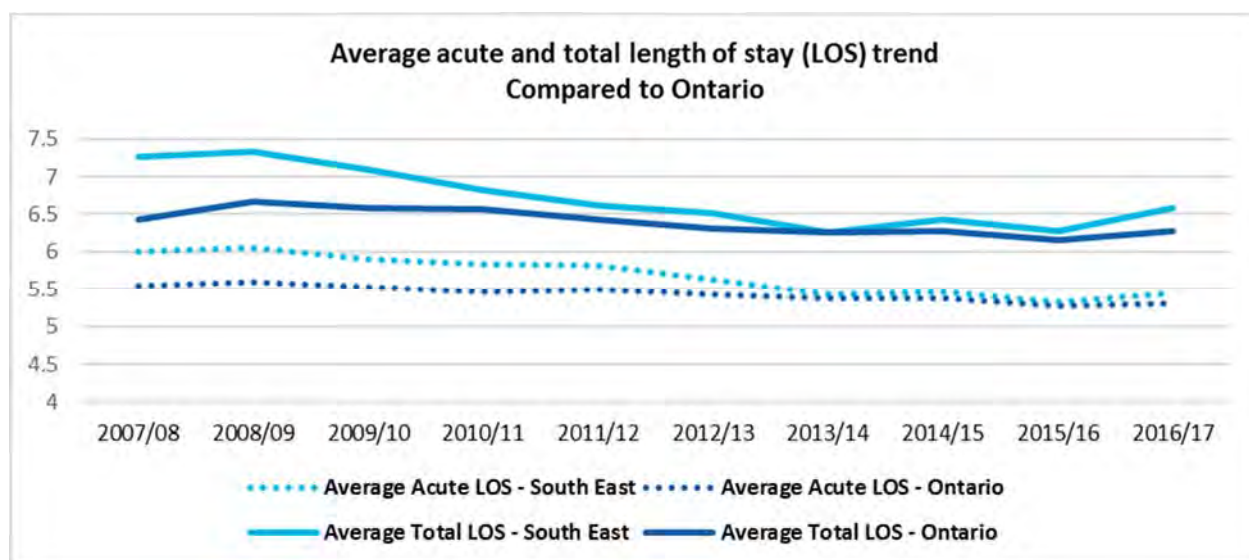
- Total days increased by 9.3% between 2013/14 and 2016/17. Overall Ontario hospitals had an increase of 4.2% of total days during this period.
- Mean total length of stay for this LHIN was 6.6 days. Higher than mean total length of stay for Ontario, which was 6.3 days.

### HBAM Group (HIG) Weight

- Mean HIG weight for South East LHIN hospitals in 2016/17 of 1.67 was higher than the provincial value of 1.55 and 2nd highest of all LHINs.

#### Acute care hospital utilization, South East LHIN, 2016/17

Measure	South East LHIN	Ontario hospitals	Comments	LHIN % change	Range within LHIN
				2013/14 - 2016/17	
Acute separations	40,264	1,041,308		4.0%	26,295 - 159,315
Total days	264,915	6,542,800		9.3%	193,259 - 1,050,391
Mean total LOS	6.6	6.3			5.0 - 7.3
Acute days	219,333	5,518,912		4.2%	142,875 - 917,167
Mean acute LOS	5.5	5.3			4.5 - 5.8
Mean HIG weight	1.67	1.55	2 <sup>nd</sup> highest		1.23 - 1.94





## Acute Care Inflow/Outflow

### Inflow

- 6.0% of hospital separations from South East LHIN hospitals were by non- South East LHIN residents

### Outflow

- 12.1% of separations for South East LHIN residents were from hospitals outside South East LHIN

### Inflow - Outflow, South East LHIN, 2016/17

Measure	South East LHIN	Ontario Hospitals	Comments	Range across SE sub-regions
Acute separations, LHIN of hospital	40,264	1,041,322		2,193 – 11,089
Acute separations, LHIN of patient	43,065	1,041,322		3,298 – 11,637
% inflow	6.0%			NA
% outflow	12.1%			4.7% - 33.5%

## Post-Acute Care

### Inpatient Rehabilitation Utilization

#### Rehabilitation Admissions

- The number of total rehabilitation admissions at the LHIN hospitals, including both general admissions and special admissions, was 965 in FY 16/17, an increase of 23.9% from FY 13/14.
  - The number of general rehabilitation admissions was 965 in FY 16/17, an increase of 23.9% from FY 13/14.
- The number of total rehabilitation admissions of the LHIN residents, was 1,026 in FY 16/17, an increase of 18.5% from FY 13/14.

#### Active Cases and Discharges

- In FY 16/17, the number of active cases was 1,152 while the number of discharges was 956.

#### Inpatient Days

- The number of total inpatient days was 29,017 in FY 16/17.
- The mean length of stay at the LHIN hospitals was 30.4 days.
- By sub-region of patient residence:
  - [Rural Hastings](#) residents had the longest length of stay at 376.1.
  - [Lanark, Leeds & Grenville](#) residents had the shortest length of stay at 163.0.

#### Admission Rate

- The number of admissions per 100,000 adults (age 18+) was 247.8 in FY 16/17, an increase of 16.3% from FY 13/14.
  - Age group 18-44 years had the lowest admission rate, 20.4 per 100,000 population.
  - Age group 80+ years had the highest admission rate, 1,431.6 per 100,000 population.
- By sub-region of patient residence:
  - [Rural Hastings](#) had the highest admission rate at 376.1.
  - [Lanark, Leeds & Grenville](#) had the lowest admission rate at 163.0.

#### Active Case Rate

- The number of active cases per 1,000 population age 18+ was 300.5.

#### Discharge Rate

- The number of discharges per 1,000 population age 18+ was 245.7.

#### Leading Rehabilitation Group

- The 5 leading rehabilitation groups that contributed to the total admissions in FY 16/17 were:
  - Fracture of lower extremity accounted for 268 admissions or 26.1 % of the total admissions.
  - Stroke accounted for 217 admissions or 21.2% of the total admissions.
  - Other disabilities accounted for 130 admissions or 12.7% of the total admissions.
  - Replacement of lower extremity accounted for 97 admissions or 9.5% of the total admissions.
  - Other orthopaedic accounted for 90 admissions or 8.8% of the total admissions.

#### Outflow

- Hospitals outside the LHIN accounted for 9.7% of the total rehabilitation admissions of the LHIN residents
- By sub-region of patient residence:

- **Rural Hastings** residents had the highest rate of admission to hospitals outside the LHIN at 27.3%.
- **Kingston** residents had the lowest rate of admission to hospitals outside the LHIN at 2.1%.

#### Inflow

- 4.0% of the rehabilitation admissions at the hospitals in the LHIN were residents from outside South East.

Rehab Admissions, Active Cases, Discharges and Days*	LHIN	Ontario	Ranking Among LHINs**	% Change 2013/14-2016/17	Range across sub-region
<b>LHIN of hospital</b>					
General admissions	965	28,691		23.9%	
Special admissions		4,444			
Total admissions	965	33,135		23.9%	
% Inflow inpatient rehab admissions	4.0%				
Active Cases	1,152	43,329			
Discharges	956	33,133			
Total Days (discharged cases only)	29,017	839,228			
Mean Length of Stay (discharged cases only)	30.4	25.3	3 <sup>rd</sup> highest		
<b>LHIN of patient</b>					
Total population age 18+	413,963	11,287,810		1.8%	
Total admissions	1,026	33,016		18.5%	87-336
Admissions/100,000 population age 18+	247.8	292.5		16.3%	163.0-376.1
Admissions/100,000 population age 18-44 years	20.4	30.4	Lowest		15.5-25.8
Admissions/100,000 population age 45-64 years	145.5	150.9			112.0-171.6
Admissions/100,000 population age 65-79 years	485.4	689.3	4 <sup>th</sup> lowest		251.5-736.1
Admissions/100,000 population age 80+ years	1,431.6	2,311.8	3 <sup>rd</sup> lowest		576.4-2,110.8
% Outflow inpatient rehabilitation admissions	9.7%				2.1%-27.3%
Active cases per 1,000 population age 18+	300.5	382.3			200.2-465.1
Discharges per 1,000 population age 18+	245.7	292.5			168.0-369.3
Mean Length of Stay (discharged cases only)	30.3	25.3	3 <sup>rd</sup> highest		27.1-32.5

Measure	Rural Hastings	Quinte	Rural Frontenac, Lennox & Addington	Kingston	Lanark, Leeds & Grenville
Rehab Admissions	110	336	87	331	162
Rehab Admission Rate per 100,000 Population	376.1	307.5	173.7	262.8	163.0
Rehab Active Cases	136	411	107	391	199
Rehab Active Case Rate per 100,000 Population	465.1	376.1	213.6	310.4	200.2
Rehab Discharges	108	327	92	323	167
Rehab Discharge Rate per 100,000 Population	369.3	299.3	183.6	256.4	168.0
Total Inpatient Days (discharged cases only)	2,930	10,639	2,740	9,473	5,079
Mean LOS (discharged cases only)	27.1	32.5	29.8	29.3	30.4
<b>Age specific admission rates per 100,000 population</b>					
18-44 years	-	-	-	25.8	15.5
45-64 years	152.2	160.4	124.2	171.6	112.0
65-79 years	736.1	558.8	450.6	593.3	251.5
80+ years	2,110.8	1,808.1	576.4	1,675.4	848.8

Rehab Admissions, by Leading Rehabilitation Groups*	LHIN	% of Total Rehab Admission
<b>LHIN of Patient</b>		
10-Fracture of lower extremity	268	26.1%
01-Stroke	217	21.2%
18-Other disabilities	130	12.7%
11-Replacement of lower extremity	97	9.5%
03-Non-traumatic brain injury	90	8.8%
12-Other orthopaedic		
13-Cardiac		
06-Non-traumatic spinal cord injury		
07-Amputation		
02-Traumatic brain injury		
16-Major multiple trauma		

\* FY 16/17 data unless noted otherwise.

\*\* Top or bottom 4 ranking in the province, compared to other LHINs.

## Complex Continuing Care Utilization

### Complex Continuing Care

- In 2016/17, there were 1,420 CCC active cases treated in South East LHIN hospitals and residents from outside the LHIN accounted for 1.8% of these active cases. In 2016/17, there were 1,152 admissions and 1,123 discharges from South East LHIN hospital CCC units. South East LHIN hospitals had a mean LOS of 53.0 days - ranking 5<sup>th</sup> across LHINs.
- There were reductions in the number of active cases (-0.3%), discharges (-2.8%), and total days (-6.2%) for South East LHIN hospital CCC units between 2013/14 and 2016/17, while there was a 1.7% increase in admissions.
- During the period, the mean length of stay in CCC beds decreased from 54.9 days to 53.0 days.
- In 2016/17, there were 1,435 CCC active cases for South East LHIN residents, and 2.8% of these cases were treated in hospitals outside the LHIN.
- The active case rate for South East LHIN residents was higher than the provincial value.

### Utilization of Complex Continuing Care, South East LHIN and Ontario, 2016/17

Measure	South East LHIN		Ontario	
	LHIN	% Change	Provincial	% Change
	Values	2013/14-2016/17	Value	2013/14-2016/17
<b>LHIN of Hospital</b>				
Active Cases	1,420	-0.3%	29,466	-0.1%
% Inflow	1.8%			
Admissions	1,152	1.7%	24,108	0.5%
Discharges	1,123	-2.8%	23,995	-0.2%
Total Days	59,515	-6.2%	1,855,227	-2.0%
Mean LOS	53.0		77.3	
<b>LHIN of Patient</b>				
Active Cases	1,435	0.6%	29,366	0.3%
Active cases/100,000 population	288.2	-0.4%	210.0	-2.9%
% Outflow	2.8%			
Admission	1,161	2.0%	24,022	0.8%
Admissions/100,000 population	233.1		171.8	
Discharges	1,136	-1.4%	23,908	0.1%
Discharges/100,000 population	228.1		171.0	
Total Days	59,848	-7.3%	1,850,599	-1.1%
Mean LOS	52.7		77.4	

## Alternate Level of Care

### LHIN overview

South East LHIN						
Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Rank
Acute ALC Days (closed cases)	31,968	39,184	37,962	45,582	NV	5
% ALC Days (Acute Inpatient closed cases)	13.2%	15.4%	15.2%	17.2%	NV	10
Volume of Closed Cases	1,685	1,756	1,963	1,872	2,161	2
Volume of Closed Cases - Home with CCAC Services	158	193	372	319	371	
Volume of Closed Cases - Long Term Care	559	518	490	423	402	
Volume of Closed Cases - Rehabilitation	474	501	557	582	618	
90 <sup>th</sup> Percentile Wait of Closed Cases (Days)	81	83	83	95	79	13
90 <sup>th</sup> Percentile Wait of Closed Cases - Home with CCAC Services	21	33	33	34	30	
90 <sup>th</sup> Percentile Wait of Closed Cases - Long Term Care	203	199	206	287	278	
90 <sup>th</sup> Percentile Wait of Closed Cases - Rehabilitation	14	14	15	14	17	
Volume of Open Cases on the last day of the year	161	212	209	197	209	4
Volume of Open Cases - Home with CCAC Services	4	15	14	12	16	
Volume of Open Cases - Long Term Care	117	148	148	114	109	
Volume of Open Cases - Supervised or Assisted Living	14	15	15	19	16	
90 <sup>th</sup> Percentile Wait of Open Cases	777	428	510	437	449	12
90 <sup>th</sup> Percentile Wait of Open Cases - Home with CCAC Services	0	55	149	20	111	
90 <sup>th</sup> Percentile Wait of Open Cases - Long Term Care	845	551	497	560	530	
90 <sup>th</sup> Percentile Wait of Open Cases - Supervised or Assisted Living	1,747	2,112	2,478	1,830	2,195	
Throughput Ratio (discharged case/newly added cases)	1.00	0.98	1.01	1.00	0.96	2
% of Cases Designated ALC Within 1 Day	7.9%	8.0%	6.5%	5.7%	4.7%	4
% of Cases Designated ALC Within 2 Days	10.5%	11.2%	10.2%	9.2%	8.0%	4
% of Cases Designated ALC Within 3 Days	15.1%	15.1%	15.7%	14.4%	12.8%	3
ALC Rate - All Inpatient Services	16.5%	16.6%	18.7%	17.3%	19.0%	11
ALC Rate - Acute Inpatient Services	13.4%	14.9%	17.4%	17.2%	18.5%	10
ALC Rate - Post-Acute Inpatient Services	21.7%	19.5%	21.0%	17.6%	19.7%	11
ALC Rate - CCC Inpatient Services	24.8%	26.0%	29.5%	23.2%	25.4%	9
ALC Rate - Mental Health Inpatient Services	25.6%	20.0%	19.5%	16.7%	19.8%	14
ALC Rate - Rehab Inpatient Services	1.6%	4.4%	8.4%	10.0%	9.3%	8

## Closed ALC Cases

### Acute ALC Days

- Acute ALC Days increased by 13,614 from FY 13/14 to FY 16/17

### % ALC Days (Acute Inpatient)

- % ALC Days increased from 13.2% in FY 13/14 to 17.2% in FY 16/17

### Volume of Closed Cases

- The volume of closed cases for all inpatient services increased by 28% from 1,685 in FY 13/14 to 2161 in FY 17/18.
  - Home with CCAC Services – number of closed cases increased by 135% from 158 in FY 13/14 to 371 in FY 17/18
  - Long-term Care – number of closed cases decreased by 28% from 559 in FY 13/14 to 402 in FY 17/18
  - Rehabilitation – number of closed cases increased by 30% from 474 in FY 13/14 to 618 in FY 17/18

### 90<sup>th</sup> Percentile Wait of Closed Cases

- The wait time for closed cases (all inpatients services and all discharge destinations) decreased by 2% from 81 days in FY 13/14 to 79 days in FY 17/18. 2<sup>nd</sup> across LHINs at the end of FY 17/18.
  - Home with CCAC Services – wait time increased by 43% from 21 days in FY 13/14 to 30 days in FY 17/18.
  - Long-term Care – wait time increased by 37% from 203 days in FY 13/14 to 278 days in FY 17/18.
  - Rehabilitation – wait time increased by 21% from 14 days in FY 13/14 to 17 days in FY 17/18.

### Wait Time by Sub-Region of Patient Residence

- Kingston residents had the longest wait in the LHIN at 108 days; Rural Frontenac, Lennox & Addington had the shortest at 38 days.
- Kingston is 3<sup>rd</sup> highest in province

## Open ALC Cases

### Volume of Open Cases

- The number of ALC waitlist entries open across all inpatient bed types increased by 30% from 161 at the end of FY 13/14 to 209 at the end of FY 17/18.
  - Home with CCAC Services – number of open cases increased by 300% from 4 at the end of FY 13/14 to 16 at the end of FY 17/18
  - Long-term Care – number of open cases decreased by 7% from 117 at the end of FY 13/14 to 109 at the end of FY 17/18
  - Supervised or Assisted Living - number of open cases increased by 14% from 14 at the end of FY 13/14 to 16 at the end of FY 17/18

### 90<sup>th</sup> Percentile Wait of Open Cases

- The wait time for open cases (all inpatients services and all discharge destinations) decreased by 42% from 777 at the end of FY 13/14 to 449 at the end of FY 17/18. Patients awaiting discharge from South East LHIN hospitals had waited 370 days longer than patients who were discharged in 17/18, and had waited the 3<sup>rd</sup> longest across LHINs at the end of FY 17/18.
  - Home with CCAC Services – wait time increased by 102% from 55 days at the end of FY 14/15 to 111 days at the end of FY 17/18.
  - Long-term Care – wait time decreased by 37% from 845 days at the end of FY 13/14 to 530 days at the end of FY 17/18.
  - Supervised or Assisted Living - wait time increased by 26% from 1,747 days at the end of FY 13/14 to 2,195 days at the end of FY 17/18.

### Wait Time by Sub-Region of Patient Residence

- **Kingston** highest sub-region at 696 days; **Rural Hastings** lowest sub-region at 0 days
- **Rural Hastings** is tied **lowest** in province
- **Kingston** 5<sup>th</sup> highest in province

### ALC Wait Time (Days ) by Sub-Region of Patient Residence

South East LHIN					
Closed & Open Cases - All Discharge Destinations by Sub-Region	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
90 <sup>th</sup> Percentile Wait of Closed Cases					
1001 RURAL HASTINGS	68	73	69	62	69
1002 QUINTE	52	65	49	96	61
1003 RURAL FRONTENAC, LENNOX & ADDINGTON	104	105	90	80	38
1004 KINGSTON	147	95	117	127	108
1005 LANARK, LEEDS & GRENVILLE	68	76	68	71	66
90 <sup>th</sup> Percentile Wait of Open Cases					
1001 RURAL HASTINGS	72	0	0	0	0
1002 QUINTE	524	265	254	343	303
1003 RURAL FRONTENAC, LENNOX & ADDINGTON	185	110	315	253	292
1004 KINGSTON	887	859	562	658	696
1005 LANARK, LEEDS & GRENVILLE	263	195	475	123	255



## Hospital Processes and Capacity

### ALC Throughput Ratio

- In the South East LHIN, the throughput ratio decreased from 1.00 in FY 13/14 to 0.96 in FY 17/18

### Percentage of Patients Designated ALC within 1, 2 & 3 Days of Admission

- The percentage of patients designated as requiring an alternate level of care within one, two and three days of admission to hospital decreased over the last five years in the South East LHIN from FY 13/14 to FY 16/17. All 3 measures are amongst the lowest rates in the province (11th, 11th, 12th respectively)

### ALC Rate (All Inpatient Services)

- The annual ALC rate for all inpatient beds increased from 16.5% in FY 13/14 to 19.0% in FY 17/18.
- In FY 17/18, the South East LHIN was above the provincial rate of 15.4%.

#### *Acute I/P Services*

- South East LHIN increased over the past 5 fiscal years (13.4% FY 13/14; 18.5% FY 17/18) and is 2.3% above the provincial value.

#### *Post-Acute I/P Services*

- South East LHIN decreased over the past 5 fiscal years (21.7% FY 13/14; 19.7% FY 17/18). South East LHIN is above the provincial Post-acute ALC rate (4<sup>th</sup> highest in ON).
  - CCC Inpatient Services – 6<sup>th</sup> across LHINs for FY 17/18. Rate increased from 24.8% in FY 13/14 to 25.4% in FY 17/18.
  - Mental Health Inpatient Services – Highest across LHINs for FY 17/18. Rate decreased from 25.6% in FY 13/14 to 19.8% in FY 17/18.
  - Rehab Inpatient Services - 7<sup>th</sup> across LHINs for FY 17/18. Rate increased from 1.6% in FY 13/14 to 9.3% in FY 17/18.

## LHIN/Facility/Site – Annual ALC Rate

Province/LHIN/Facility/Site			Annual ALC Rate					% Change FY 13/14 to FY 17/18
			FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	
<b>Provincial</b>			<b>13.8%</b>	<b>13.7%</b>	<b>13.9%</b>	<b>14.8%</b>	<b>15.4%</b>	
<b>LHIN</b>	<b>10</b>	<b>South East</b>	<b>16.5%</b>	<b>16.6%</b>	<b>18.7%</b>	<b>17.3%</b>	<b>19.0%</b>	<b>2.5%</b>
<b>Facility</b>	592	LENNOX AND ADDINGTON COUNTY GEN HOSPITAL	27.9%	32.2%	44.9%	46.1%	35.6%	7.7%
<b>Facility</b>	619	BROCKVILLE GENERAL HOSPITAL	20.7%	21.5%	25.9%	18.6%	22.3%	1.6%
<b>Site</b>	4186	BROCKVILLE GENERAL HOSPITAL - CHARLES ST	8.1%	9.7%	14.0%	7.7%	11.0%	2.9%
<b>Site</b>	4762	BROCKVILLE GENERAL HOSPITAL - CHARLES ST - MENTAL HEALTH	17.4%	12.4%	15.8%	16.4%	12.7%	(-4.7%)
<b>Site</b>	4646	BROCKVILLE GENERAL HOSPITAL - GARDEN ST	39.4%	43.5%	47.2%	35.2%	41.8%	2.4%
<b>Facility</b>	978	KINGSTON HEALTH SCIENCES CENTRE	N/A	N/A	N/A	N/A	16.5%	N/A
<b>Site</b>	693	KINGSTON HEALTH SCIENCES CENTRE - KINGSTON GENERAL HOSPITAL	10.5%	11.9%	14.8%	16.1%	15.9%	5.3%
<b>Facility</b>	695	PROVIDENCE CARE HOSPITAL	23.4%	17.4%	20.4%	15.2%	18.6%	(-4.8%)
<b>Site</b>	1112	PROVIDENCE CARE HOSPITAL - CCC/REHABILITATION	12.8%	10.6%	16.1%	12.0%	13.2%	0.4%
<b>Site</b>	4589	PROVIDENCE CARE HOSPITAL - MENTAL HEALTH	32.1%	24.4%	25.1%	18.6%	24.7%	(-7.4%)
<b>Facility</b>	928	PERTH & SMITHS FALLS DIST	21.4%	24.4%	20.6%	28.9%	35.0%	13.7%
<b>Site</b>	4251	PERTH & SMITHS FALLS DIST-PERTH SITE	24.6%	26.0%	21.1%	30.4%	40.7%	16.1%
<b>Site</b>	4316	PERTH & SMITHS FALLS DIST-SMITHS FALLS	17.6%	22.6%	20.0%	27.2%	28.7%	11.0%
<b>Facility</b>	957	QUINTE HEALTHCARE CORPORATION	14.4%	16.9%	16.2%	13.7%	14.5%	0.1%
<b>Site</b>	4097	QUINTE HEALTHCARE -BELLEVILLE	6.3%	9.4%	9.0%	12.9%	14.1%	7.8%
<b>Site</b>	4098	QUINTE HEALTHCARE -BANCROFT	22.0%	22.7%	32.1%	9.3%	9.7%	(-12.3%)
<b>Site</b>	4099	QUINTE HEALTHCARE -TRENTON	64.2%	61.3%	60.2%	22.3%	20.2%	(-43.9%)
<b>Site</b>	4100	QUINTE HEALTHCARE -PICTON	15.2%	23.6%	20.9%	9.0%	9.2%	(-6.0%)

- In FY 17/18, Lennox and Addington County General Hospital had the highest ALC Rate across the South East LHIN at the facility level, with Brockville General Hospital – Garden Street having the highest site level rate.
- Perth and Smiths Falls District Hospital had the greatest increase in ALC Rate since FY 13/14 (+13.7%)
- Quinte Health Care - Trenton had the greatest decrease in ALC Rate since FY 13/14 (-43.9%).

## Long-Term Care

### Long-Term Care Bed Supply

- 37 LTC homes are licensed and approved to operate in South East LHIN.
- As of February 2018, there were a total of 4,070 Long-Term Care beds in operation in South East LHIN.
  - With the exception of 56 beds designated as Short-stay, Respite or Convalescent care beds, almost all of the LTC beds are designated Long-Stay Beds or Interim beds.

### Long-Term Care Waitlist & Placements

- Of the 1,359 patients placed in South East LHIN Long-Term Care Homes in FY 2017/18, approximately 76% were from the community while only 19% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- Of the 1,327 residents of South East LHIN placed in Ontario Long-Term Care Homes in FY 2017/18, approximately 76% were from the community while only 19% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- The median time to placement in a South East LHIN long-term care home, as of March 2018, was 153 days.
  - Half of community patients waited less than 179 days for a placement in a South East LHIN LTC home while half of hospital patients waited less than 80 days for placement in a South East LHIN LTC Home.
- The median time to placement for a South East LHIN resident to be placed in a long-term care home, as of March 2018, was 150 days.
  - Half of community patients from South East LHIN waited less than 176 days for a placement in an Ontario LTC home while half of hospital patients waited less than 79 days for placement.
- As of March 2018, there were 1,284 patients on the waitlist waiting for placement in a Long-Term Care home in South East LHIN (not including patients awaiting transfer from one LTC home to another).
- As of March 2018, there were 1,291 residents of South East LHIN on the waitlist waiting for placement in an Ontario Long-Term Care home (not including patients awaiting transfer from one LTC home to another).

### Long-Stay Demand

- As of March 2018, there were 3,958 long-stay residents occupying LTC Homes within South East LHIN.
- When adjusted for the size of the older population, South East LHIN has approximately 87 Long-Stay beds per 1,000 people aged 75+.
- The gap between the demand and supply of Long-Term Care Homes in South East LHIN reflects a shortage of approximately 1,228 Long-Stay beds.
  - The largest gap is in the [Kingston](#) sub-region (455 beds) and the smallest in [Rural Frontenac, Lennox & Addington](#) (107 beds).

### Selected Characteristics of Long-Term Care Home Residents

- In South East LHIN, 83% of Residents were over the age of 75 with 56% being over the age of 85.
- In 2016/17, the mean age of residents of LTC Homes in South East LHIN was 84.
- The mean length of stay for residents of LTC Homes in South East LHIN was 915 days (about 2.5 years) with half of residents remaining in LTC homes for less than 572 days.
- Nearly 78% of residents need extensive help with daily activities such as getting out of bed, eating, or toileting; 27% are highly or entirely dependent on staff.
- 85% have some form of cognitive impairment; 30% are severely impaired.
- 57% exhibit some level of aggressive behaviour related to their cognitive impairment or mental health condition with 8% exhibiting very severe aggressive behavior.

- 67% of active LTC Residents in South East LHIN LTC Homes have been identified as having some form of dementia.

## Long-term care home supply, waitlists and placements, and resident characteristics, by LHIN sub-region

	South East		1001		1002		1003		1004		1005	
			Rural Hastings		Quinte		Rural Frontenac, Lennox & Addington		Kingston		Lanark, Leeds & Grenville	
Long-term care bed supply in the sub-region (February 2018)	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-term care homes	37		4		11		5		7		10	
Long-stay beds	4,014	87.3	395	119.0	1,065	78.7	356	78.4	1,147	90.6	1,051	88.0
Short-stay, respite & convalescent care beds	56	1.2	12	3.6	8	0.6	23	5.1	12	0.9	1	0.1
Total beds in operation	4,070	88.5	407	122.7	1,073	79.3	379	83.5	1,159	91.6	1,052	88.1

*\*The denominator for the rate calculation refers to the number of sub-region residents age 75+; however the LTC homes/beds may serve individuals from other sub-regions. Therefore, rates should be interpreted with caution.*

	South East		1001		1002		1003		1004		1005	
			Rural Hastings		Quinte		Rural Frontenac, Lennox & Addington		Kingston		Lanark, Leeds & Grenville	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>By sub-region of long-term care home (patients awaiting placement in a home within the sub-region)</b>												
Long-stay waitlist without transfer patients*	1,284	27.9	118	35.6	376	27.8	108	23.8	468	37.0	214	17.9
<b>Placements**</b>												
From community	1,033	76.0%	118	73.3%	283	82.7%	88	75.2%	305	83.3%	239	64.1%
From hospital	253	18.6%	36	22.4%	50	14.6%	24	20.5%	45	12.3%	98	26.3%
Total	1,359		161		342		117		366		373	
<b>Median time to placement (days)</b>												
From community	179		97.5		170.0		232.0		229.0		158.0	

	South East		1001		1002		1003		1004		1005	
			Rural Hastings		Quinte		Rural Frontenac, Lennox & Addington		Kingston		Lanark, Leeds & Grenville	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
From hospital	80		49.5		123.0		117.0		255.0		53.0	
Total	153		78.0		161.0		213.0		225.5		122.0	
<b>By sub-region of patient (patients who reside within the sub-region and are awaiting placement in any home)</b>												
<b>Long-stay waitlist without transfer patients*</b>	1,291	28.1	116	35.0	398	29.4	130	28.6	422	33.3	225	18.8
<b>Placements**</b>												
From community	1,009	76.0%	80	65.0%	322	85.0%	94	74.6%	286	82.7%	227	64.3%
From hospital	255	19.2%	38	30.9%	48	12.7%	29	23.0%	47	13.6%	93	26.3%
Total	1,327		123		379		126		346		353	
<b>Median time to placement (days)</b>												
From community	176		115.0		167.0		203.5		238.0		151.0	
From hospital	79		53.0		102.0		84.0		216.0		51.0	
Total	150		74.0		152.0		154.0		229.5		112.0	

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents

Placements from other locations (correctional facilities, homeless, out-of-province) are not shown but are included in the total placement values.

	South East		1001		1002		1003		1004		1005	
			Rural Hastings		Quinte		Rural Frontenac, Lennox & Addington		Kingston		Lanark, Leeds & Grenville	
Long-stay demand (February / March 2018) for LTC homes in the sub-region	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-stay residents	3,958	86.1	392	118.1	1,041	76.9	355	78.2	1,134	89.6	1,036	86.8
Long-stay waitlist without transfer patients	1,284	27.9	118	35.6	376	27.8	108	23.8	468	37.0	214	17.9
Total demand	5,242	114.0	510	153.7	1,417	104.7	463	102.0	1,602	126.6	1,250	104.7
Total long-stay supply	4,014	87	395	119.0	1,065	78.7	356	78.4	1,147	90.6	1,051	88.0
Difference between supply and demand	1,228	27	115	34.7	352	26.0	107	23.6	455	35.9	199	16.7

	South East		1001		1002		1003		1004		1005	
			Rural Hastings		Quinte		Rural Frontenac, Lennox & Addington		Kingston		Lanark, Leeds & Grenville	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %

#### Demography, volume and length of stay (LOS)

Active LTC Residents*	3,572	77.7	362	109.1	914	67.5	326	71.8	1,040	82.2	930	77.9
Number of admissions*	1,500	32.6	152	45.8	366	27.0	154	33.9	417	32.9	411	34.4

#### By age group\*\*

Residents age <65	206	5.8%	16	4.4%	60	6.6%	12	3.7%	66	6.3%	52	5.6%
Residents age 65-74	390	10.9%	43	11.9%	87	9.5%	36	11.0%	114	11.0%	110	11.8%
Residents age 75-84	974	27.3%	103	28.5%	262	28.7%	81	24.8%	277	26.6%	251	27.0%
Residents age 85+	2,002	56.0%	200	55.2%	505	55.3%	197	60.4%	583	56.1%	517	55.6%

	South East		1001		1002		1003		1004		1005	
			Rural Hastings		Quinte		Rural Frontenac, Lennox & Addington		Kingston		Lanark, Leeds & Grenville	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Mean age of residents	84		84		84		85		84		84	
Mean age of residents at admission	83		83		83		85		83		84	
<b>Length of stay</b>												
Mean LOS (days)	915		749		910		858		963		968	
Median LOS (days)	572		367		532		473		738		614	
<b>Residents by level of ADL assistance required**</b>												
None or limited assistance required	770	21.6%	104	28.7%	140	15.3%	99	30.4%	232	22.3%	195	21.0%
Extensive assistance required	1,836	51.4%	192	53.0%	525	57.4%	137	42.0%	512	49.2%	470	50.5%
Dependent	966	27.0%	66	18.2%	249	27.2%	90	27.6%	296	28.5%	265	28.5%
<b>Residents by level of aggressive behaviour**</b>												
No signs of aggressive behaviour	1,542	43.2%	165	45.6%	378	41.4%	163	50.0%	405	38.9%	431	46.3%
Some signs of aggressive behaviour	1,040	29.1%	122	33.7%	274	30.0%	114	35.0%	255	24.5%	275	29.6%
Moderate to severe aggressive behaviour	693	19.4%	60	16.6%	177	19.4%	30	9.2%	243	23.4%	183	19.7%
Very severe aggressive behaviour	297	8.3%	15	4.1%	85	9.3%	19	5.8%	137	13.2%	41	4.4%
<b>Cognitive impairment categories **</b>												



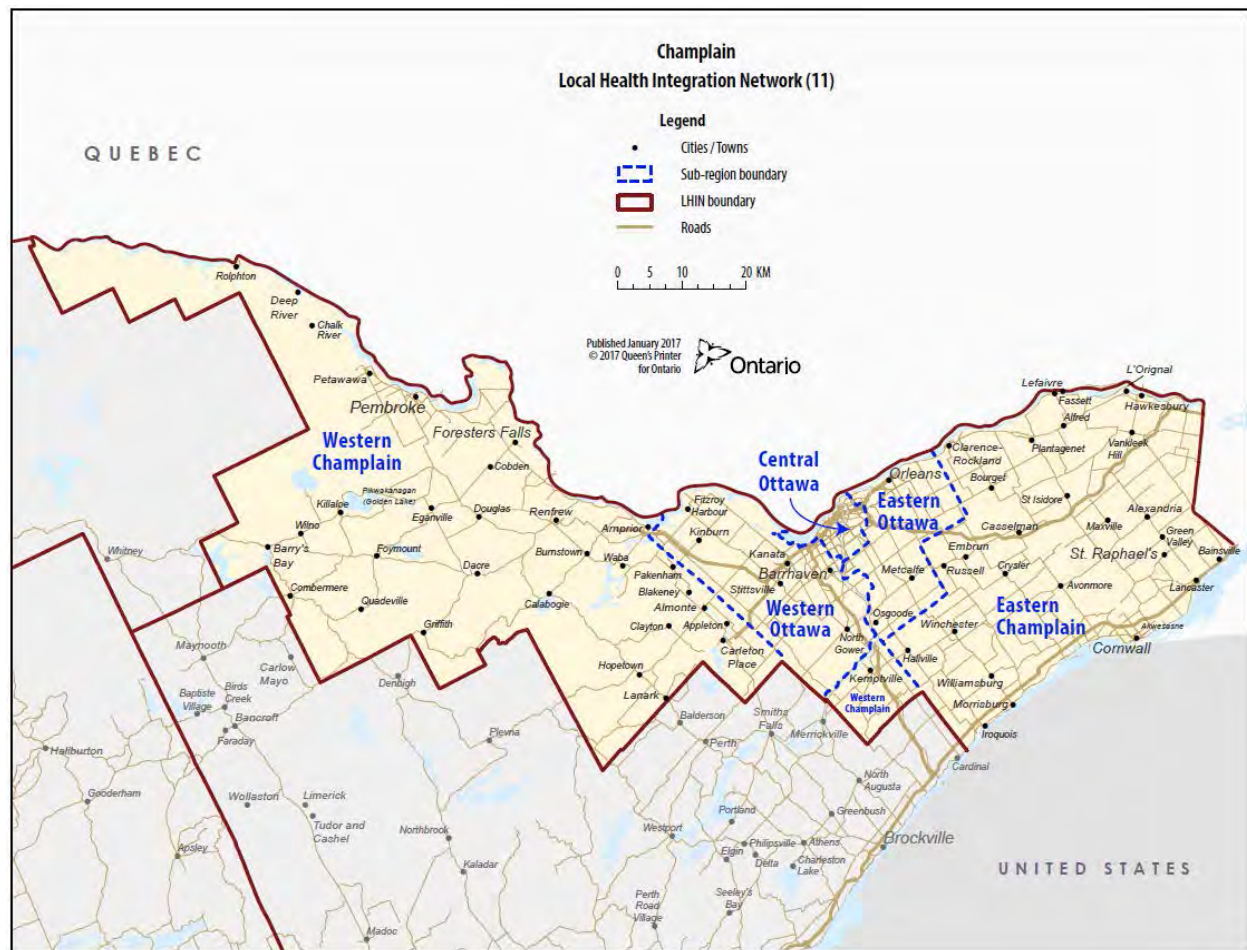
	South East		1001		1002		1003		1004		1005	
			Rural Hastings		Quinte		Rural Frontenac, Lennox & Addington		Kingston		Lanark, Leeds & Grenville	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Relatively intact	534	14.9%	45	12.4%	122	13.3%	54	16.6%	149	14.3%	164	17.6%
Mild impairment	1,961	54.9%	219	60.5%	493	53.9%	159	48.8%	580	55.8%	510	54.8%
Severe impairment	1,077	30.2%	98	27.1%	299	32.7%	113	34.7%	311	29.9%	256	27.5%
<b>RUG categories **</b>												
1 Extensive Services	96	2.7%	11	3.0%	16	1.8%	6	1.8%	39	3.8%	24	2.6%
2 Special Rehabilitation	145	4.1%	27	7.5%	30	3.3%	25	7.7%	35	3.4%	28	3.0%
3 Special Care	397	11.1%	49	13.5%	107	11.7%	43	13.2%	95	9.1%	103	11.1%
4 Clinically Complex	770	21.6%	101	27.9%	178	19.5%	67	20.6%	246	23.7%	178	19.1%
5 Impaired Cognition	560	15.7%	65	18.0%	135	14.8%	61	18.7%	161	15.5%	138	14.8%
6 Behavioural Problems	73	2.0%	6	1.7%	15	1.6%	9	2.8%	26	2.5%	17	1.8%
7 Reduced Physical Functions	1,531	42.9%	103	28.5%	433	47.4%	115	35.3%	438	42.1%	442	47.5%
<b>Residents with Dementia**</b>	<b>2,382</b>	<b>66.7%</b>	<b>234</b>	<b>64.6%</b>	<b>620</b>	<b>67.8%</b>	<b>208</b>	<b>63.8%</b>	<b>712</b>	<b>68.5%</b>	<b>608</b>	<b>65.4%</b>

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents



# 11. Champlain LHIN



## Contents

<b>11. Champlain LHIN</b>	<b>1</b>
<b>Highlights</b>	<b>1</b>
Champlain LHIN .....	1
Residents of Champlain LHIN Sub-Regions .....	3
<b>Population Characteristics</b>	<b>8</b>
Population Estimates .....	8
2016 Census Profile .....	9
Births and Mortality.....	16
General Health, Risk Factors, and Prevention.....	20
Chronic Conditions .....	22
<b>Human Resources</b>	<b>34</b>
<b>Primary Care</b>	<b>37</b>
Primary Care Enrolment .....	37
Selected Measures from the Health Care Experience Survey .....	37
<b>Community Care</b>	<b>39</b>
<b>Mental Health</b>	<b>40</b>
Wait Time for Community Services.....	40
Mental Health and Substance Abuse Emergency Department Visits.....	40
Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility .....	40
<b>Surgery &amp; Diagnostic Imaging</b>	<b>43</b>
Day Surgery and Cardiac Catheterization Utilization .....	43
Surgical & Diagnostic Imaging Wait Times .....	44
<b>Oncology and Dialysis</b>	<b>53</b>
<b>Home Care</b>	<b>57</b>
<b>Palliative Care</b>	<b>60</b>
<b>Emergency Department</b>	<b>63</b>
Emergency Department Utilization .....	63
Emergency Department Performance .....	67
<b>Acute Care</b>	<b>69</b>
Acute Care Utilization by Residents of the Champlain LHIN.....	69
Acute Care Utilization for Champlain LHIN Facilities .....	70
Acute Care Inflow/Outflow.....	71
<b>Post-Acute Care</b>	<b>73</b>
Inpatient Rehabilitation Utilization .....	73
Complex Continuing Care Utilization .....	76
<b>Alternate Level of Care</b>	<b>77</b>
Closed ALC Cases .....	78
Open ALC Cases .....	79
Hospital Processes and Capacity .....	80
<b>Long-Term Care</b>	<b>82</b>

## Highlights

Comprehensive information about population demographics, health status, health outcomes, chronic conditions, human resources, primary care, health service utilization, and long-term care in the Champlain LHIN can be found under the content headings of in the remainder of this document, beginning with the socio-demographic profile. This Highlights introduction is intended to provide a guide to areas in which either the Champlain LHIN or one of its sub-regions is significantly different from the province as a whole. Sub-region comparisons within this section are always to the other 75<sup>1</sup> sub-regions across the province, and LHIN comparisons are always to the other 13 LHINs.

## Champlain LHIN

### Population Characteristics

- The Champlain LHIN had the 2<sup>nd</sup> highest percentage of residents reporting that they consulted with family doctor/general practitioner in the past year.
- Champlain LHIN hospitals had the highest increase in total days in adult designated mental health beds from 2013/14 to 2016/17.
- The Champlain LHIN had a **significantly lower** percentage of people who died in hospital than the province as a whole.
- Champlain had a **significantly lower** percentage of patients with two or more acute inpatient admissions in the last 30 days of life than the province as a whole.
- Champlain LHIN residents had the **longest** acute length of stay in 2016/17.
- The Champlain LHIN had the **lowest** proportion of outflow (residents of the Central West LHIN admitted to acute inpatient beds in other LHINs).
- The Champlain LHIN had the **shortest** rehabilitation length of stay.
- Hospitals in the Champlain LHIN had the 2<sup>nd</sup> greatest growth in active CCC cases between 2013/14 and 2016/17.

### Strengths

- In 2015-16, Champlain LHIN residents reported the 2<sup>nd</sup> highest rate of very good or excellent health, and **significantly higher** than Ontario.
- A **significantly higher** percentage of Champlain LHIN residents than Ontarians indicated that they received a flu shot in the year preceding the survey.
- Champlain residents had the 2<sup>nd</sup> lowest rate of physical inactivity, significantly better than Ontario.
- Champlain residents reported the 2<sup>nd</sup> lowest rate of inadequate consumption of fruits and vegetables.
- The Champlain LHIN had the 2<sup>nd</sup> lowest prevalence rate of diabetes in the province.
- The Champlain LHIN had the **lowest** percentage of residents who went to a walk in clinic for something that could have been treated by a primary care provider if they were available.
- Champlain LHIN hospitals had the **lowest** mean length of stay for inpatient rehabilitation.

### Challenges/Opportunities

- Champlain had the 2<sup>nd</sup> highest proportion of mothers who reported drinking alcohol during pregnancy.
- The Champlain LHIN had the highest prevalence rate of asthma in the province.
- The mean acute length of stay for Champlain LHIN residents was highest among LHINs.

---

<sup>1</sup> Or however many sub-regions have reported data across the province.

- In 2017/18, 90<sup>th</sup> percentile wait time for adult MRI scans was **longest** in the Champlain LHIN.
- Emergency departments in the Champlain LHIN had the **lowest** percentage of non-admitted low acuity patients discharged within the target of 4 hours.
- Champlain emergency departments provided the **longest** length of stay for non-admitted high acuity patients, and the **lowest** percentage of these patients discharged within the target of 8 hours.

## Residents of Champlain LHIN Sub-Regions

### CENTRAL OTTAWA SUB-REGION HIGHLIGHTS

#### Population Characteristics

- 4<sup>th</sup> highest population among Ontario's sub-regions.
- 4<sup>th</sup> lowest dependency ratio
- 4<sup>th</sup> highest percentage of people age 65+ living alone.
- 6<sup>th</sup> highest percentage of both residents who reported French as their mother tongue and who met the new inclusive definition of Francophone.
- 8<sup>th</sup> lowest percentage of residents with post-secondary education below bachelor's degree.
- 6<sup>th</sup> highest percentage of residents with bachelor's degree completion and beyond.
- 6<sup>th</sup> highest rate of palliative home visits in the last 90 days of life in 2016/17.

#### Strengths

- 8<sup>th</sup> lowest percentage of children under 6 living in low-income households.
- Overweight or obesity rates were **significantly lower** than Ontario.
- 8<sup>th</sup> lowest percentage of residents who went to a walk in clinic for something that could have been treated by a primary care provider if they were available.
- Among the 8 sub-regions with the lowest hospitalization rates for cardiovascular disease, cerebrovascular disease, hypertension, ischemic heart disease, and stroke.

#### Challenges/Opportunities

- Compared to Ontario, the proportion of people with a regular medical doctor was **significantly lower** in [Central Ottawa](#).
- **Significantly higher** prevalence rate for asthma than Ontario.

## WESTERN OTTAWA SUB-REGION HIGHLIGHTS

### Population Characteristics

- 8<sup>th</sup> lowest percentage of residents age 65+.
- 8<sup>th</sup> highest percentage of both residents who reported French as their mother tongue and who met the new inclusive definition of Francophone.
- 3<sup>rd</sup> lowest percentage of residents with less than high school.
- 7<sup>th</sup> lowest percentage of residents with only high school completion.
- 7<sup>th</sup> highest percentage of residents participating in the labour force.
- Among the lowest acute separation rates from acute hospital beds in 2016/17.
- 7<sup>th</sup> shortest rehabilitation length of stay.
- Among the lowest rates of acute care days per 1,000 residents in 2016/17.

### Strengths

- 5<sup>th</sup> lowest percentage of dwellings in need of major repairs.
- 6<sup>th</sup> lowest percentage population living below the low-income measure.
- 6<sup>th</sup> lowest percentage of children under 6 living in low-income households.
- 5<sup>th</sup> lowest percentage of children under 18 living in low-income households.
- 2<sup>nd</sup> lowest percentage of seniors (65+) living in low-income households.
- 5<sup>th</sup> lowest percentage of residents spending 30% or more of household income on rent or payments.
- *Very good or excellent* health was significantly more prevalent in the [Western Ottawa](#) sub-region compared to Ontario.
- **Significantly lower** smoking rate compared to Ontario.
- **Significantly lower** prevalence rate for arthritis than Ontario.
- **Significantly lower** prevalence rates for diabetes and heart disease than Ontario. *Note: The reported rate had high sampling variability, the rate must be used with caution*
- Among the 8 sub-regions with the lowest hospitalization rates for asthma, cardiovascular disease, hypertension, and respiratory disease.
- [Western Ottawa](#) was among the 8 sub-regions with the lowest mean cost per user.
- Among the 8 sub-regions with the lowest percentage of complex patients (4+ conditions).
- Among the lowest ranking Ontario sub-regions for the rate of acute separations per 1,000 residents.
- Among the lowest ranking Ontario sub-regions for the rate of acute days per 1,000 residents.
- 6<sup>th</sup> lowest all-cause potentially years of life lost rate.
- 7<sup>th</sup> lowest mean length of stay for inpatient rehabilitation.

### Challenges/ Opportunities

- [Western Ottawa](#) was not significantly different from the rest of Ontario in any areas of challenge or opportunity.



## EASTERN CHAMPLAIN SUB-REGION HIGHLIGHTS

### Population Characteristics

- 2<sup>nd</sup> highest percentage of both residents who reported French as their mother tongue and who met the new inclusive definition of Francophone.
- 8<sup>th</sup> lowest percentage of residents who reported no knowledge of English or French.
- 7<sup>th</sup> lowest percentage of residents who were immigrants.
- 8<sup>th</sup> lowest percentage of residents who were recent immigrants.
- 6<sup>th</sup> highest percentage of residents with only high school completion.
- Among the eight sub-regions with the highest service hour rates for personal support.

### Strengths

- 3<sup>rd</sup> highest percentage of residents who reported attachment to a primary care provider.

### Challenges/Opportunities

- **Significantly higher** smoking rate than Ontario.
- Overweight or obesity rates were **significantly higher** than Ontario.
- **Eastern Champlain** had **significantly higher** prevalence rates for arthritis and diabetes than Ontario.
- Among the 8 sub-regions with the highest hospitalization rates for chronic obstructive pulmonary disease and lower respiratory disease.

## WESTERN CHAMPLAIN SUB-REGION HIGHLIGHTS

### Population Characteristics

- 4<sup>th</sup> lowest percentage of residents who were immigrants.
- 6<sup>th</sup> lowest percentage of residents who were recent immigrants.
- 8<sup>th</sup> lowest percentage of residents with post-secondary education below bachelor's degree.
- Among the longest acute length of stay in acute hospital beds in 2016/17.

### Strengths

- Western Champlain had the **lowest** rate of households with an insufficient number of bedrooms to accommodate household size.

### Challenges/Opportunities

- 4<sup>th</sup> highest pre-term birth rate in the province.
- **Significantly higher** smoking rate than Ontario.
- Overweight or obesity rates were **significantly higher** than Ontario.
- Prevalence rates for arthritis and hypertension were **significantly higher** than Ontario's.
- Western Champlain had a **significantly higher** prevalence rate for heart disease than Ontario.
- 7<sup>th</sup> highest percentage of residents who went to the ED for something that could have been treated by a primary care provider.
- 6<sup>th</sup> highest percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days.

## EASTERN OTTAWA SUB-REGION HIGHLIGHTS

### Population Characteristics

- 7<sup>th</sup> lowest percentage of residents age 75+.
- **Eastern Ottawa** had the 3<sup>rd</sup> highest percentage of both residents who reported French as their mother tongue and who met the new inclusive definition of Francophone.
- 6<sup>th</sup> lowest percentage of residents with less than high school.
- 2<sup>nd</sup> shortest rehabilitation length of stay.

### Strengths

- 5<sup>th</sup> lowest percentage of the population living below the low-income measure.
- 8<sup>th</sup> lowest percentage of children under 6 living in low-income households.
- 7<sup>th</sup> lowest percentage of children under 18 living in low-income households.
- **Eastern Ottawa** had the **lowest** percentage of seniors (65+) living in low-income households of all Ontario sub-regions.
- 5<sup>th</sup> lowest stillbirth rates in the province.
- **Significantly higher** proportion of people with a regular medical doctor compared to Ontario.
- **Significantly lower** smoking rate than Ontario.
- 4<sup>th</sup> lowest percentage of residents who went to a walk in clinic for something that could have been treated by a primary care provider if they were available.
- Among the 8 sub-regions with the lowest hospitalization rates for hypertension.
- 2<sup>nd</sup> lowest mean length of stay for inpatient rehabilitation.

### Challenges/Opportunities

- 7<sup>th</sup> lowest percentage of residents who reported spending 30% or more of household income on rent or payments.

## Population Characteristics

### Population Estimates<sup>2</sup>

- As of 2016, the population of the Champlain LHIN is estimated to be 1,334,963, a 5.1% increase from 2011.
  - The populations 65 and over and 75 and over represent 16% and 7% of the total population respectively.
- The population of the Champlain LHIN is projected to increase by 7.5% by 2021 and by 13.3% by 2026.

### Population Estimates from 2016 Census and Ministry of Finance

	Ontario	Champlain	Comments†
2011 Census, total population	12,851,821	1,230,655	
2016 Census, total population	13,448,494	1,292,639	
Population growth between 2011 and 2016 (based on Census)	4.6%	5.0%	
Estimated population, 2011	13,263,544	1,270,295	
<b>Estimated population, 2016</b>	<b>13,982,984</b>	<b>1,334,963</b>	
% population age 65+	16.38%	16.22%	
% population age 75+	7.17%	6.91%	
<b>% population change estimated 2011-2016</b>	<b>5.4%</b>	<b>5.1%</b>	
Projected population, 2021	14,980,422	1,434,870	
Projected population, 2026	15,822,463	1,512,089	
% changes (based on changes from the 2016 estimates)			
% population change forecasted 2016-2021	7.1%	7.5%	
% population change forecasted 2016-2026	13.2%	13.3%	

Sub-Region Name	Total population	Age 65plus	% 65+	Age 75plus	% 75+
<b>Central Ottawa</b>	461,087	78,488	17.02%	36,902	8.00%
<b>Western Ottawa</b>	297,474	38,135	12.82%	14,897	5.01%
<b>Eastern Champlain</b>	205,982	40,443	19.63%	17,144	8.32%
<b>Western Champlain</b>	155,500	31,139	20.03%	13,643	8.77%
<b>Eastern Ottawa</b>	214,920	28,274	13.16%	9,603	4.47%

<sup>2</sup> Please see note in Ontario chapter on Census versus Ministry of Finance estimates.

### Census Demographics

- 16.5% of the population was in the age group 0-14 and 66.8% was in the age group 15-64.
- The dependency ratio in Champlain at 64.3 is lower than the province (64.5).
- The largest proportion of Champlain's population (66.0%) lived in large urban communities.
- 12.5% of Champlain's population lived in medium/small population centre communities.
- 11.8% of Champlain's population lived in rural or small communities adjacent to urban areas communities.
- The smallest proportion of Champlain's population (9.8%) lived in rural and small town communities.
- Champlain's land mass measures 17,723 square kilometres making it the 5<sup>th</sup> largest LHIN in the province.
- Champlain's population density was 72.9 persons per square kilometre giving it the 9<sup>th</sup> densest population in the province.

### Households

- In 2016, 197,685 households contained one or more family members aged 65 years and over. 25.0% of those individuals were living alone.
  - By sub-region, **Central Ottawa** had the highest rate of seniors living alone (33.2%) and **Western Ottawa** had the lowest (16.8%).
  - **Central Ottawa** had the highest rate of one-person households (38.5%) and **Western Ottawa** had the lowest (17.3%)
  - **Western Ottawa** had the highest rate of 5-or-more person households (10.8%) and **Central Ottawa** had the lowest (6.0%).
- In 2016, 211,345 families with children were living within the boundaries of the Champlain LHIN. 26.7% of those families were lone parent.
  - By sub-region, **Central Ottawa** had the highest rate of lone-parent families (34.6%) and **Western Ottawa** had the lowest (20.6%)
- The total number of owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio was 516,020. 23.2% of those households spent 30% or more of their income on rent or payments.
  - By sub-region, **Central Ottawa** had the highest rate (30.5%) and **Eastern Ottawa** had the lowest (16.8%).
- The total number of private households was 520,920. 68.5% of those were owner occupied, 31.5% were rented, and less than 0.1% were band housing.
  - By sub-region and owner occupation rate, **Western Ottawa** had the highest rate (84.9%) with **Central Ottawa** having the lowest (47.0%).
- 6.0% of the private households in the Champlain were in need of major repair.
  - By sub-region and housing in need of repair rate, **Western Champlain** had the highest rate (8.0%) and **Western Ottawa** had the lowest (3.3%).
- 4.0% of the private households in the Erie St. Clair LHIN had an insufficient number of bedrooms to accommodate the household makeup.
  - By sub-region and housing suitability, **Central Ottawa** had the highest rate of unsuitable housing (6.2%) and **Western Champlain** had the lowest (2.0%).

## Language

- In 2016, 66.2% of the population reported English and 18.5% reported French as their mother tongue in Champlain LHIN.
  - By sub-region, **Western Champlain** had the highest percentage (91.0%) and **Eastern Champlain** had the lowest percentage of residents who identified English as their mother tongue (56.5%).
  - By sub-region, **Eastern Champlain** had the highest percentage (41.0%) and **Western Champlain** had the lowest percentage of residents who identified French as their mother tongue (5.5%).
- In 2016, 19.8% of Champlain LHIN residents were Francophone under the 2009 new Inclusive Definition of Francophone, the 2<sup>nd</sup> highest proportion in the province.
  - By sub-region, **Eastern Champlain** had the highest proportion of Francophone residents (41.3%) and **Western Champlain** had the lowest (5.5%).
- 1.1% of the LHIN's population reported no knowledge of either official language.
  - By sub-region, **Central Ottawa** reported the highest percentage of residents with no knowledge of English or French (1.9%). **Western Champlain** sub-region and **Eastern Champlain** sub-region both had the lowest (0.1%).
- 75.0% of the LHIN's population reported English as the most common language spoken at home, followed by French (11.9%), English and a non-official language (3.1%), Arabic (1.5%) and English and French (1.3%).

## Income

- In the Champlain LHIN, 12.8% of the population lived on low income, based on the after-tax low income measure (LIM-AT).
  - The proportion of residents living below the low income measure varied by sub-region, from 6.7% in the **Eastern Ottawa** sub-region to 19.9% in the **Central Ottawa** sub-region.
  - The proportion of households in the lowest income quintile ranged across sub-regions in the Champlain LHIN, from 9.7% in the **Western Ottawa** sub-region to 26.2% in the **Central Ottawa** sub-region.
- The proportion of households in the highest income quintile varied across sub-regions in the Champlain LHIN, from 17.0% in the **Eastern Champlain** sub-region to 34.9% in the **Western Ottawa** sub-region.
- In the Champlain LHIN, 17.4% of children under the age of 6 lived in low income households.
  - By sub-region, children living in low income households ranged from 9.2% in the **Western Ottawa** sub-region to 29.6% in the **Central Ottawa** sub-region.

## Immigration

- In 2016, immigrants accounted for 18.7% of the Champlain LHIN population. From 1980 to 2016, 46.1% of immigrants were admitted as economic immigrants, 29.4% were sponsored by family and 23.3% were admitted as refugees. 2.5% of the Champlain LHIN population were **recent immigrants**, having arrived in Canada between 2011 and 2016. Of the recent immigrants, the highest proportion came from the Philippines (8.8%), followed by China (8.5%).
  - Among the five Champlain LHIN sub-regions, the percentage of immigrants ranged from 5.7% in **Eastern Champlain** to 26.4% in **Central Ottawa**.
  - The percentage of recent immigrants ranged from 0.3% in **Western Champlain** to 4.5% in **Central Ottawa**.
- In 2016, 20.8% of the Champlain LHIN population were **first generation Canadians** (children of immigrants).

- Among the five Champlain LHIN sub-regions, the percentage of first generation Canadians ranged from 6.3% in [Eastern Champlain](#) to 30.3% in [Central Ottawa](#).

### Visible Minorities

- In 2016, 19.9% of the Champlain LHIN population was a visible minority.
  - Among the five Champlain LHIN sub-regions, the percentage of visible minorities ranged from 2.5% in [Western Champlain](#) to 29.3% in [Central Ottawa](#).

### Indigenous (Aboriginal) Identity

- 3.2% of the Champlain LHIN's residents identified as Aboriginal, with 1.7% identifying as First Nations and 1.3% as Métis.
  - Among the five Champlain LHIN sub-regions, the percentage of residents reporting Aboriginal identity ranged from 2.1% in [Western Ottawa](#) to 7.0% in [Western Champlain](#).
- Socio-economic data for Mohawks of Akwesasne First Nation community (which is within the [Eastern Champlain](#) sub-region) was collected for the first time in the 2016 Census of Population. In 2016, the enumerated population of Akwesasne (Part) 59 (Indian reserve) was **1,487**; however, the registered on-reserve population according to INAC is **9,794**. Caution should be exercised when interpreting 2016 Census data due to under coverage of the population.

### Education

- In 2016, 37.1% of Champlain LHIN residents of working age had completed post-secondary education, ranking 4<sup>th</sup> across the province.
  - Across Champlain sub-regions, the percentage of the population with less than high school ranged from 4.2% in [Western Ottawa](#) to 13.3% in [Eastern Champlain](#).
  - The percentage of the population with high school completion ranged from 18.2% in [Western Ottawa](#) to 31.0% in [Eastern Champlain](#).
  - The percentage of the population with post-secondary education below bachelor's degree ranged from 25.1% in [Central Ottawa](#) to 42.5% in [Western Champlain](#).
  - The percentage of the population with bachelor's degree completion and beyond ranged from 14.7% in [Eastern Champlain](#) to 48.3% in [Central Ottawa](#).

### Labour Force Participation

- In 2016, Champlain LHIN had a workforce participation rate of 66% of residents aged 15+ and an unemployment rate of 7.1%.
- Of those employed in 2016, 42% of Champlain LHIN residents had a commute time from their residence to their place of work of 30 minutes or more, while 18.4% had a commute time of 45 minutes or more.

2016 Census profile	Ontario	Champlain	Comments†
<b>Census Population 2016</b>			
Dependency ratio (number of "dependents" for every 100 "workers")	64.5	64.3	
<b>Urban-Rural Gradient</b>			
% large urban	68.1%	66.0%	
% medium/small population centre	14.7%	12.5%	
% rural or small communities adjacent to urban areas	8.4%	11.8%	
% rural and small town	8.8%	9.8%	
Land Area (sq km)	908,699	17,723	
Population Density (persons per square kilometre)	14.8	72.9	
<b>Population by Household and Families</b>			
% of people age 65+ living alone	23.5%	25.0%	
% of dwellings in need of major repairs	6.1%	6.0%	
% of households with an insufficient # of bedrooms	6.0%	4.0%	
<b>Language</b>			
% who report English as their mother tongue	69.5%	66.2%	
% who report French as their mother tongue	4.3%	18.5%	2 <sup>nd</sup> highest
% with no knowledge of English or French	2.5%	1.1%	
% Francophone (IDF)	4.7%	19.8%	2 <sup>nd</sup> highest
<b>Population (in Private Households) Living in Low Income</b>			
% Population living below low-income measure (LIM-AT)	14.4%	12.8%	
% Children living in low income households/LIM (age<6)	19.8%	17.4%	
% Children living in low income households/LIM (age<18)	18.4%	16.1%	
% Seniors living in low income households/LIM (age 65+)	12.0%	10.9%	
<b>Immigration</b>			
% of population who are immigrants	29.1%	18.7%	
% of population who arrived within 5 years	3.6%	2.5%	
% first generation Canadian (children of immigrants)	31.1%	20.8%	
<b>Visible Minorities</b>			
% of population who are visible minorities	29.3%	19.9%	
<b>Indigenous Identity</b>			
% of population of Aboriginal identity	2.8%	3.2%	
% population First Nations identity	1.8%	1.7%	
% population Metis identity	0.9%	1.3%	
% population Inuk identity	0.0%	0.1%	
% Multiple Aboriginal responses	0.0%	0.1%	
% Aboriginal responses not included elsewhere	0.1%	0.1%	
<b>Educational Attainment</b>			
% Population age 25-64 with less than high school	10.4%	7.8%	
% Population age 25-64 with high school completion	24.5%	22.2%	
% Population age 25-64 with post-secondary education below bachelor's degree	33.2%	32.9%	
% Population age 25-64 with bachelor's degree completion and beyond	31.9%	37.1%	
<b>Labour Force Activity</b>			
% In the labour force (Participation rate)	64.7%	66.1%	
% Unemployed	7.4%	7.1%	
% 60 minutes and over commuting duration	12.4%	8.1%	

†Ranking in the province, compared to other LHINs.



## Sub-Region Profiles, 2016 Census

Sub-Region	Central Ottawa	Western Ottawa	Eastern Champlain	Western Champlain	Eastern Ottawa
<b>Census Population 2016</b>					
Dependency ratio (number of "dependents" for every 100 "workers")	57.5	66.2	71.0	71.2	64.5
<b>Urban-Rural Gradient</b>					
% large urban	99.9%	84.8%	0.0%	0.0%	83.7%
% medium/small population centre	0.0%	2.1%	41.3%	39.2%	4.7%
% rural or small communities adjacent to urban areas	0.1%	13.1%	21.2%	28.6%	11.6%
% rural and small town	0.0%	0.0%	37.4%	32.2%	0.0%
Land Area (sq km)	182	1,662	5,314	9,619	947
Population Density (persons per square kilometre)	2,296.2	181.9	38.2	16.2	226.5
<b>Population by Household and Families</b>					
% of people age 65+ living alone	33.2%	16.8%	24.8%	24.9%	17.2%
% Of dwellings in need of major repairs	7.1%	3.3%	7.6%	8.0%	3.8%
% of households with an insufficient # of bedrooms	6.2%	2.9%	2.5%	2.0%	3.3%
<b>Language</b>					
% who report English as their mother tongue	62.0%	72.0%	56.5%	91.0%	57.1%
% who report French as their mother tongue	14.9%	7.8%	41.0%	5.5%	28.8%
% with no knowledge of English or French	1.9%	1.4%	0.1%	0.1%	0.8%
% Francophone	16.9%	8.9%	41.3%	5.5%	31.0%
<b>Population (in Private Households) Living in Low Income</b>					
% Population living below low-income measure (LIM-AT)	19.9%	6.8%	14.6%	11.7%	6.7%
% Children living in low income households/LIM (age<6)	29.6%	9.2%	21.0%	14.0%	9.4%
% Children living in low income households/LIM (age<18)	28.1%	9.0%	18.5%	13.7%	9.4%
% seniors living in low income households/LIM (age 65+)	13.2%	5.5%	15.1%	12.1%	5.3%
<b>Population by Income Quintiles</b>					
% Economic families in Income quintile 1 - lowest income	26.2%	9.7%	20.2%	16.4%	9.8%
% Economic families in Income quintile 2	15.4%	12.1%	20.3%	20.2%	12.2%
% Economic families in Income quintile 3	15.0%	17.7%	21.1%	22.3%	17.7%
% Economic families in Income quintile 4	17.5%	25.6%	21.4%	23.1%	26.1%
% Economic families in Income quintile 5 - highest income	25.9%	34.9%	17.0%	18.1%	34.1%

Sub-Region	Central Ottawa	Western Ottawa	Eastern Champlain	Western Champlain	Eastern Ottawa
<b>Immigration</b>					
% of population who are immigrants	26.4%	23.0%	5.7%	5.9%	19.2%
% of population who arrived within 5 years	4.5%	2.6%	0.3%	0.3%	2.0%
% first generation Canadian (children of immigrants)	30.3%	24.6%	6.3%	6.6%	20.7%
<b>Visible Minorities</b>					
% of population who are visible minorities	29.3%	25.0%	3.3%	2.5%	22.5%
<b>Indigenous Identity</b>					
% of population of Aboriginal identity	2.7%	2.1%	3.9%	7.0%	2.7%
% population First Nations identity	1.4%	1.1%	2.4%	3.9%	1.1%
% population Metis identity	1.0%	0.9%	1.3%	2.6%	1.3%
% population Inuk identity	0.2%	0.0%	0.1%	0.1%	0.1%
% Multiple Aboriginal responses	0.0%	0.0%	0.1%	0.1%	0.1%
% Aboriginal responses not included elsewhere	0.1%	0.1%	0.1%	0.3%	0.1%
<b>Educational attainment</b>					
% Population age 25-64 with less than high school	8.1%	4.2%	13.3%	10.1%	5.5%
% Population age 25-64 with high school completion	18.5%	18.2%	31.0%	29.7%	21.7%
% Population age 25-64 with post-secondary education below bachelor's degree	25.1%	33.0%	41.0%	42.5%	33.8%
% Population age 25-64 with bachelor's degree completion and beyond	48.3%	44.5%	14.7%	17.6%	39.1%
<b>Labour Force Activity</b>					
% In the labour force (Participation rate)	64.4%	70.7%	62.5%	62.8%	69.1%
% Unemployed	8.7%	6.1%	6.6%	6.6%	6.2%
% 60 minutes and over commuting duration	5.4%	8.7%	10.9%	9.8%	8.6%

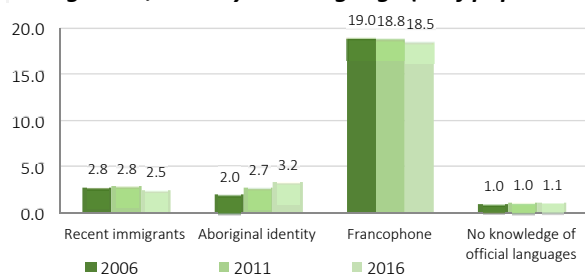
## Champlain

### 2016 Census Profile Summary

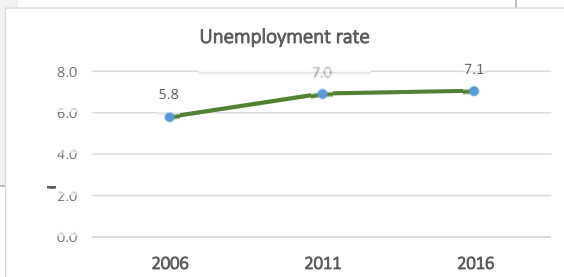
#### Number of private dwellings

2006	484,472
2011	522,326
2016	556,095

#### Immigration, identity and language (% of population)



#### Change in unemployment rate, 2006 to 2016 = 21.2%

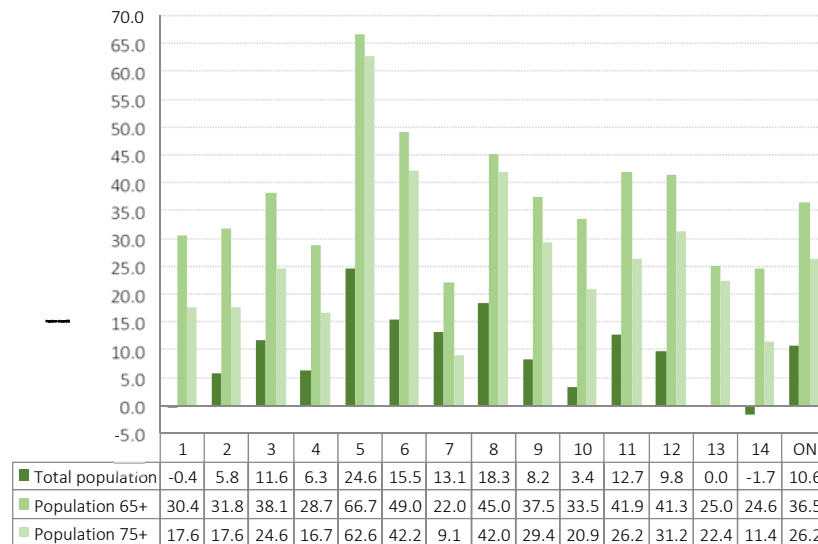


#### Population change (2006-2016)

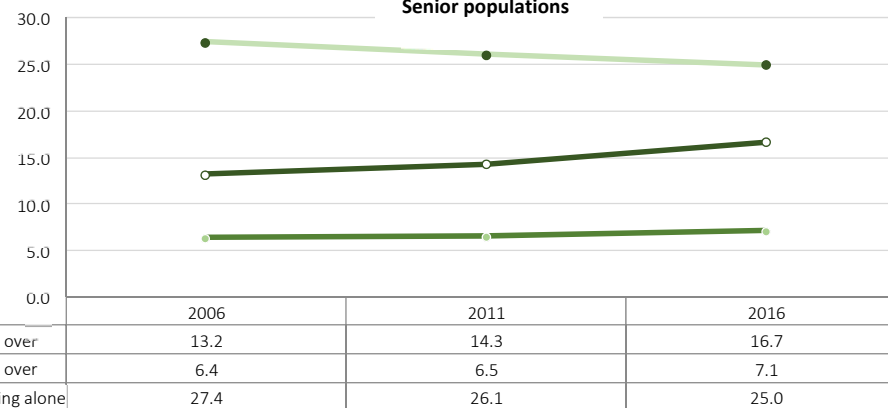
The growth of the senior (65+) population across LHINs ranged from 67% in Central West to 22% in Toronto Central.

The growth of the population age 75+ in Champlain between 2006 and 2016 was 26.2%, compared to 26.2% for the province as a whole. Total LHIN population growth was 12.7% for the same period.

#### Population change, 2006 to 2016, by LHIN



#### Senior populations



## Births and Mortality

### Births and Maternal Outcomes

- In FY 2016/17, there were 13,003 pregnancies and 13,241 births to Champlain women. 96% of births took place in a hospital; the remaining 4% were in the home, birth centre or other (including nursing stations, births outside of Ontario and other Ontario locations).
- In 2016, the crude birth rate (per 1,000 population) in Champlain was 9.6.
- The fertility rate per 1,000 Champlain females of reproductive age (15 to 49) was 40.3.
- For teenagers (15 to 19), the fertility rate per 1,000 Champlain females was 5.8.
- In FY2016, 1.7% of women who gave birth were under 20 years of age. 24.2% of women were 35 years or older.
- The overall mean age of mothers giving birth in this LHIN was 30.8.
- In 2016, the stillbirth rate per 1,000 live births in Champlain was 7.8.
  - By sub-region, **Eastern Ottawa** had the 5<sup>th</sup> lowest stillbirth rates in the province (5.5).

### Multiple Births

- The multiple live birth rate per 100 live births in 2016 was 3.5.

### Pre-Term Births

- In 2016, the pre-term birth rate per 100 live births was 8.2.
  - By sub-region, **Western Champlain** had the 4<sup>th</sup> highest pre-term birth rate in the province (9.7).

### Size for Gestational Age and Birth Weight

- The low birth weight rate per 100 live births in Champlain was 6.4.
- In 2016, the small for gestational age rate per 100 live births was 8.3.
- In 2016, the large for gestational age rate per 100 live births was 11.2.

### Attendants, Assisted Delivery & Epidural Anaesthesia during Labour

- In Champlain, 76.9% of hospital births were attended by an obstetrician.
- Among vaginal deliveries, the overall assisted delivery rate for Champlain women was 12.4 and using vacuum extraction was 9.6. Assisted delivery rate using forceps was 2.3.
- The epidural rate for vaginal deliveries was 65.8 and for all deliveries, 55.6.

### Caesarean Deliveries

- In FY 2016/17, the total Caesarean section rate per 100 deliveries was 28.7.
- The rate of primary Caesarean section rate (the mother's first Caesarean, regardless if she had given birth vaginally before) was 19.2 per 100 deliveries. The primary Caesarean section rate was lower in women under 35 years of age (18.2) compared to those 35 and over (23.1).
- The rate of repeat Caesarean sections in Champlain was 82.1 per 100 deliveries.

### Breastfeeding

- The rate of exclusive breastfeeding at discharge among term live births in this LHIN was 63.6%.

## Births and Maternal Outcomes, Ontario

	Champlain	Ontario	Comments <sup>†</sup>
Total births in Ontario, LHIN of maternal residence	13,241	141,163	
Hospital	12,660	136,505	
Home	347	3,813	
Birth Centre	220	572	
Crude birth rate (per 1,000 population)	9.6	9.8	
Stillbirth rate (per 1,000 live births)	7.8	8.1	
Multiple live birth rate (per 100 live births)	3.5	3.3	
Rate of preterm birth (<37 weeks) (%) <sup>*</sup>	8.4%	8.2%	
Preterm birth rate (per 100 live births) <sup>**</sup>	8.2	8.1	
Total pregnancies in Ontario, LHIN of maternal residence	13,003	138,781	
Fertility rate (per 1,000 females of reproductive age)			
Overall rate (15 to 49)	40.3	41.2	
Teen rate (15 to 19)	5.5	6.3	
Distribution of maternal age (%)			
<20	1.7%	1.9%	
≥ 35	24.2%	23.8%	
Mean age of mother at birth of first infant	29.4	29.3	
Overall mean age of mother at birth	30.8	30.7	
Rate of Caesarean delivery (%), LHIN of hospital	28.8%	28.4%	
Total Caesarean Section Rate	28.7	28.4	
Primary Caesarean Section Rate, LHIN of patient	19.2	19.0	
Primary C-Section Rate (< 35 years)	18.2	17.9	
Primary C-Section Rate (≥ 35 years)	23.1	22.9	
Repeat Caesarean Section Rate	82.1	82.7	
Epidural Rate for Vaginal Deliveries	65.8	60.3	
Epidural Rate for All Deliveries	55.6	51.0	
Assisted Delivery Rate Among Vaginal Deliveries			
Overall	12.4	12.3	
Vacuum Extraction	9.6	9.1	
Forceps	2.3	2.8	
Healthcare provider who caught the baby for hospital births (%), LHIN of hospital			
Obstetrician	76.9%	78.8%	
Family doctor	9.3%	7.4%	
Midwife	7.2%	7.4%	
Other	6.6%	6.4%	
Low birth weight rate (per 100 live births)	6.4	6.8	
Fullterm low birth weight rate (per 100 live births)	1.7	2.0	
Births small for gestational age (%) <sup>*</sup>	7.9%	9.7%	
Small for gestational age (per 100 live births) <sup>**</sup>	8.3	9.6	
Births large for gestational age (%) <sup>*</sup>	11.4%	9.7%	
Large for gestational age (per 100 live births) <sup>**</sup>	11.2	9.8	
Rate of exclusive breastfeeding among term live hospital births (%), LHIN of maternal residence	63.6%	62.8%	

<sup>†</sup>Ranking in the province compared to other LHINs.

<sup>\*</sup> As reported by BORN Ontario

<sup>\*\*</sup> As reported by Public Health Ontario

### Maternal smoking, alcohol and drug use during pregnancy among all women who live in Ontario and who had a live birth or stillbirth (LHIN of maternal residence), 2016/17 (BORN)

- In Champlain, the rate of women who self-identified as non-smokers at their first prenatal visit was 90.4%. At the time of labour, 93.0% were non-smokers.
  - The prevalence of smoking 1-10 cigarettes and 10+ cigarettes at the first prenatal visit was 5.8% and 3.3%, respectively.
- 4.4% of the women reported drinking alcohol, the 2<sup>nd</sup> highest proportion in the province. 2.0% reported using drugs during pregnancy.

	Champlain	Ontario	Comments <sup>†</sup>
<b>Maternal smoking at first prenatal visit (%) LHIN of maternal residence<sup>‡</sup></b>			
% women who reported smoking (0) cigarettes/day	90.4%	90.7%	
% women who reported smoking (1 – 10) cigarettes/day	5.8%	5.5%	
% women who reported smoking (10+) cigarettes/day	3.3%	3.2%	
<b>Maternal smoking at time of labour (%)</b>			
% women who reported smoking (0) cigarettes/day	93.0%	92.5%	
% women who reported smoking (1 – 10) cigarettes/day	4.4%	4.6%	
% women who reported smoking (10+) cigarettes/day	2.2%	2.6%	
Alcohol consumption during pregnancy (%)	4.4%	2.6%	2 <sup>nd</sup> highest
Drug and substance exposure during pregnancy (%)	2.0%	2.3%	

<sup>†</sup>Ranking in the province compared to other LHINs.

### Life Expectancy

- Life expectancy at birth for both males and females in 2012-2014 was 83 years. By sex, life expectancy at birth for males in Champlain LHIN was 81 years, and 85 years for females.
- Life expectancy at age 65 for both sexes from 2012-2014 was 21 years. By sex, life expectancy at age 65 for males in Champlain LHIN was 20 years. Life expectancy at age 65 for females from 2012-2014 was 23 years.

	Champlain LHIN	Ontario	Rank among LHINs <sup>†</sup>
<b>Life Expectancy</b>			
<b>Life expectancy at birth- Both Sexes 2012-14</b>	82.8	82.3	
<b>Life expectancy at birth- Male 2012-14</b>	80.7	80.2	
<b>Life expectancy at birth- Female 2012-14</b>	84.7	84.3	
<b>Life expectancy at age 65- Both Sexes 2012-14</b>	21.2	20.9	
<b>Life expectancy at age 65- Male 2012-14</b>	19.6	19.3	
<b>Life expectancy at age 65- Female 2012-14</b>	22.6	22.2	

<sup>†</sup>Ranking in the province compared to other LHINs (highest and lowest 2).

### Mortality and Potential Years of Life Lost

- In 2012, 8,446 Champlain LHIN residents died.
- The all-cause mortality rate for LHIN residents was 658 per 100, 000 population in 2012.
- Ischaemic heart disease was the leading cause of death in Champlain LHIN, followed by Dementia and Alzheimer's disease and cancer of lung and bronchus.
- 49,212 years of potential life were lost by LHIN residents in 2012.
- The LHIN's potential years of life lost (PYLL) rate for 2012 was 4,097 per 100,000 population aged less than 75. Since 2007, the PYLL rate decreased by 9.8% for Champlain LHIN residents.

- By sub-region, **Western Ottawa** had the 6<sup>th</sup> lowest all-cause PYLL rate per 100,000 population (3,024.3).
- The leading causes of PYLL in 2012 were Ischaemic heart disease, cancer of lung and bronchus and intentional self-harm.

### Mortality, Potential Years of Life Lost

	Champlain LHIN	Ontario	Rank among LHINs†	Range across CH sub-regions
<b>Mortality, 2012</b>				
<b>Total deaths, 2012</b>	8,446	90,525		1,006-3,051
<b>% change in total deaths (2007-2012)</b>	1.8%	4.1%		NA
<b>All-cause mortality rate per 100,000</b>	657.9	674.9		469.1-868.2
<b>% change in all-cause mortality rate (2007-</b>	-4.6%	-0.7%		NA
<b>% of deaths that were premature (age &lt; 75)</b>	36.9%	37.3%		34.5%-41.0%
<b>Top 10 leading causes of death, 2012 (rates per 100,000 population)<sup>3</sup></b>				
Ischaemic heart disease	91.9	98.0		58.9-142.1
Dementia & Alzheimer's disease	60.9	55.6		36.6-69.5
Cancer of lung & bronchus	51.4	50.3		32.8-83.1
Cerebrovascular diseases	34.6	36.6		24.4-46.2
Chronic lower respiratory diseases	29.8	28.4		18.4-47.7
Cancer of colon, rectum, anus	25.2	23.4		19.8-33.8
Diabetes	21.3	20.7		12.4-34.6
Cancer of lymph, blood & related	20.5	20.0		16.4-22.9
Falls	17.4	17.4		9.0-25.6
Cancer of breast	14.2	14.3		NA
<b>Potential years of life lost (PYLL), 2012</b>				
<b>Total PYLL, 2012</b>	49,212	551,256		6,536-16,812
<b>% change in PYLL (2007-2012)</b>	-4.3%	-0.6%		NA
<b>PYLL rate per 100,000 population (age &lt; 75)</b>	4,097	4,405		3,024.3-5,809.2
<b>% change in PYLL rate (2007-2012)</b>	-9.8%	-5.0%		NA
<b>Top 10 leading causes of PYLL, 2012 (rates per 100,000 population, age &lt; 75)<sup>4</sup></b>				
Ischaemic heart disease	404.5	406.8		247.2- 667.5
Cancer of lung & bronchus	349.5	322.6		207.8- 706.4
Intentional self-harm	261.6	284.7		160.1- 454.0
Perinatal conditions	199.8	253.3		172.8- 343.3
Accidental poisoning	132.0	190.6		70.4- 222.0
Transport accidents	166.4	171.8		98.9- 361.9
Cancer of lymph, blood & related	178.5	149.1		NA
Cancer of breast	152.0	147.0		137.0- 178.1
Cancer of colon, rectum, anus	148.5	141.3		144.2- 196.5
Cirrhosis & other liver diseases	128.6	133.5		NA

†Ranking in the province, compared to other LHINs.

<sup>3</sup> Mean rate from 2010-2012

<sup>4</sup> Mean rate from 2010-2012

## General Health, Risk Factors, and Prevention

### General Health

- In 2015-16, 65% of Champlain LHIN residents said they had very good or excellent health- **significantly higher** than Ontario (61%).
  - At the sub-region level, *very good or excellent* health was significantly more prevalent in the **Western Ottawa** sub-region compared to Ontario.
- 72% reported very good or excellent mental health. The proportion declined between 2005 and 2014, as it did in Ontario overall. Perceived very good or excellent mental health in Champlain LHIN decreased 8% between 2005 and 2014
- 22% of Champlain residents reported that most days were “*quite a bit*” or “*extremely*” stressful.

### Prevention

- 89% of Champlain residents reported having a regular medical doctor.
  - Compared to Ontario, the proportion of people with a regular medical doctor was **significantly higher** in the **Eastern Ottawa** sub-region and **significantly lower** in the **Central Ottawa** sub-region.
- 37% of residents of Champlain LHIN indicated that they received a flu shot in the year preceding the survey—a **significantly higher** rate than Ontario (33%) in 2015-16, but the rate fluctuated substantially between 2005 and 2014.

### Risk Factors

- 16% of Champlain residents reported daily or occasional smoking in 2015-16. Smoking rates have been declining over time.
  - Compared to Ontario, **significantly higher** smoking rates are found in the sub-regions of **Eastern Champlain** and **Western Champlain**, with **significantly lower** rates in **Western Ottawa** and **Eastern Ottawa** sub-regions.
- 20% of Champlain residents reported heavy drinking. Heavy drinking is defined as having consumed 5 or more drinks for males and 4 or more drinks for women on at least one occasion at least once a month during the past year.
- The majority-63%- of Champlain residents were either overweight or obese. Overweight and obesity are rising over time in Ontario, and many of the LHINs, including Champlain. In addition, the obesity rate in Champlain rose 6% between 2005 and 2014.
  - Overweight or obesity rates are **significantly higher** than Ontario in **Eastern Champlain** and **Western Champlain** sub-regions and lower in the **Central Ottawa** sub-region.
- Only 35% of Champlain residents were physically inactive—now defined as less than 150 minutes of moderate to vigorous activity per week. This is a significantly better rate than Ontario (42%).
- Over two-thirds (68%) of Champlain residents did not consume enough fruits and vegetables (i.e., had fewer than 5 servings of fruits or vegetables daily). The Champlain rate is better than Ontario overall (72%).



## General Health, Risk Factors, and Prevention: Champlain LHIN

	Champlain LHIN 2015-16	Ontario (2015-16)	Rank among LHINs <sup>†</sup> (2015-16)	Range across CH sub- regions (2011-14)*
<b>General Health</b>				
General health, % of the population age 12+ with...				
Very good or excellent self-perceived health	65% <sup>1</sup>	61%	2 <sup>nd</sup> highest	57-65%
Very good or excellent self-perceived mental health	72%	71%		69-73%
Days that are 'quite a bit' or 'extremely' stressful (age 15+)	22%	22%		
<b>Prevention</b>				
Use of Health Services and Preventive Care, % of the population age 12+ who...				
Have a regular medical doctor	89%	90%		81-94%
Have consulted with family doctor/general practitioner (past yr)	76%	74%	2 <sup>nd</sup> highest	
Received flu shot in the past year	37% <sup>1</sup>	33%	3 <sup>rd</sup> highest	
<b>Risk Factors</b>				
Risk factors, % of the population age 12+ who...				
Are daily or occasional smokers	16%	17%		13-24%
Are exposed to second-hand smoke in the home	6.5%	6.9%		
Are heavy drinkers	20%	18%		
Are overweight or obese (age 18+)	63%	61%		44-62%
Are overweight (age 18+)	37%	35%		29-35%
Are obese (age 18+)	26%	26%		14-29%
Are physically inactive	35% <sup>-1</sup>	42%	2 <sup>nd</sup> lowest	32-47%
Consume < 5 servings of fruits/vegetables daily	68% <sup>-1</sup>	72%	2 <sup>nd</sup> lowest	58-65%

\*2011-2014 sub-region rates are not directly comparable with LHIN and Ontario rates from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

<sup>†</sup>Top or bottom 3 ranking in the province, compared to other LHINs. Interpret with caution, rank based on point estimate, which may or may not be significantly different from Ontario. See significance flags for each measure below.

<sup>1</sup> LHIN is **significantly higher** than Ontario

<sup>-1</sup> LHIN is **significantly lower** than Ontario

<sup>c</sup> Estimates with high sampling variability (CV between 16.6 -33.3) must be used with caution.

## Chronic Conditions

### Prevalence, mortality, hospital separations and hospital days of stay for selected chronic conditions

- 40.7% of Champlain residents (aged 12+) reported having one or more chronic conditions with 15.4% having two or more chronic conditions.
- Chronic conditions with the highest or lowest prevalence rates compared to other LHINs were as follows: Asthma - **Highest**; Diabetes - 2<sup>nd</sup> lowest.
- The mean health care cost per user for Champlain residents in 2015/16 was \$2,750 (\$2,750 for Ontario).
- 5.4% of the patients were complex (4+ conditions), versus 5.8% for Ontario.
- The mean healthcare cost of a complex patient was \$23,700 compared to \$22,050 for Ontario.
- 5.1% of the patients were high cost user patients, 5.0% for Ontario.
- The mean healthcare cost per high cost user was \$37,400 compared to \$37,700 for Ontario.
- The hospitalization rate (per 100,000 population) for asthma in Champlain LHIN was 27.8 compared to 34.3 for Ontario. The Champlain LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for cardiovascular disease in Champlain LHIN was 815 compared to 917 for Ontario. The Champlain LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for hypertension in Champlain LHIN was 11.7 compared to 18 for Ontario. The Champlain LHIN among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for ischemic heart disease in Champlain LHIN was 274.6 compared to 314.8 for Ontario. The Champlain LHIN was among the 3 LHINs with the lowest rates.

### Chronic Conditions, Complex Patients

Condition	Champlain	Ontario	Comment
<b>Self-reported prevalence (2015-16), rate per 100, age 12+</b>			
Arthritis	20.1	20.6	
Asthma	11	8.7	Highest
Cancer	1.1 <sup>C</sup>	1.3	
Chronic Obstructive Pulmonary Disease (COPD) (age 35+)	2.9	4.0	
Diabetes	6.2	7.4	2 <sup>nd</sup> lowest
High blood pressure	16.7	18.2	
Heart disease	5.4	4.6	
Suffer from effects of stroke	1.2 <sup>C</sup>	1.3	
Have a chronic condition	40.7	39.6	
Have multiple chronic conditions <sup>1</sup>	15.4	16.2	

C:  $0.15 < CV \leq 0.25$  Marginal (Use with caution-high sampling variability)

D:  $0.25 < CV \leq 0.35$  Marginal (Use with caution-high sampling variability)

1 - Of the selected conditions on this list

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>			
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	27.8	34.3	
Cardiovascular disease	814.6	916.9	
Cerebrovascular disease	121.9	133.2	
COPD	207.4	171.8	
Diabetes	89.4	100.2	
Hypertension	11.7	18.0	
Ischemic heart disease	274.6	314.8	
Lower respiratory disease	237.2	208.9	
Respiratory disease	576.6	599.7	
Stroke	103.6	112.5	

<b>Complex Patients and high cost users, 2015/16</b>			
Mean health care cost per user \$	\$ 2,750	\$ 2,750	
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$ 23,700	\$ 22,050	
# of patients that are complex	59,825	680,115	
% of all patients (health care users) that are complex	5.4%	5.8%	
<b>High cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$ 37,400	\$ 37,700	
# of patients that are high cost users	56,065	581,670	
% of patients that are high cost users	5.1%	5.0%	

## CENTRAL OTTAWA SUB-REGION (1101)

- The prevalence rate (per 100) for the population with asthma was 10.2 (Ontario - 7.8). **Central Ottawa** sub-region's rate was **significantly higher** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 700.0 (Ontario - 916.9). **Central Ottawa** sub-region was among the 8 sub-regions with the lowest hospitalization rates. (of 76 sub-region in Ontario)
- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 111.6 (Ontario - 133.2). **Central Ottawa** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for hypertension was 9.8 (Ontario - 18). **Central Ottawa** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 217.6 (Ontario - 314.8). **Central Ottawa** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for stroke was 93.4 (Ontario - 112.5). **Central Ottawa** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Central Ottawa** sub-region was \$3,050 (Ontario - \$2,750).
- 5.9% of patients from **Central Ottawa** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Central Ottawa** sub-region was \$25,550 (Ontario - \$22,050).
- 5.5% of patients from **Central Ottawa** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Central Ottawa** sub-region was \$40,150 (Ontario - \$37,700).

### Chronic Conditions, Complex Patients

Condition	Central Ottawa	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	16.3	17.3	51
Asthma	10.2	7.8	12
Diabetes	5.4	6.8	58
High blood pressure	15.6	18.1	57
Heart disease	4.4	5.0	52

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	27.2	53
Cardiovascular disease	700.0	73
Cerebrovascular disease	111.6	68.5
COPD	167.4	45
Diabetes	77.8	60
Hypertension	9.8	68
Ischemic heart disease	217.6	71
Lower respiratory disease	196.2	48
Respiratory disease	506.5	65
Stroke	93.4	69

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,050	36.5
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$25,550	14
# of patients that are complex	21,085	680,115
% of all patients (health care users) that are complex	5.9%	44
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$40,150	15
# of patients that are high cost users	19,470	581,670
% of patients that are high cost users	5.5%	39

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## WESTERN OTTAWA SUB-REGION (1102)

- The prevalence rate (per 100) for the population with arthritis (14+) was 11.9 (Ontario - 17.3). **Western Ottawa** sub-region's rate was **significantly lower** than Ontario.
- The prevalence rate (per 100) for the population with diabetes was 4.1 (Ontario - 6.8). **Western Ottawa** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The prevalence rate (per 100) for the population with heart disease was 3 (Ontario - 5). **Western Ottawa** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The age standardized rate (per 100,000) for hospitalization for asthma was 16.6 (Ontario - 34.3). **Western Ottawa** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 739.4 (Ontario - 916.9). **Western Ottawa** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for hypertension was 8.9 (Ontario - 18). **Western Ottawa** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 437.4 (Ontario - 599.7). **Western Ottawa** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Western Ottawa** sub-region was \$2,100 (Ontario - \$2,750). It was among the 8 sub-regions with the lowest mean cost per user.
- 4.1% of patients from **Western Ottawa** sub-region were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the lowest percentage of complex patients.
- The mean health care cost per complex patient in **Western Ottawa** sub-region was \$21,650 (Ontario - \$22,050).
- 3.8% of patients from **Western Ottawa** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Western Ottawa** sub-region was \$34,850 (Ontario - \$37,700).

### Chronic Conditions, Complex Patients

Condition	Western Ottawa	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	11.9	17.3	71
Asthma	8.7	7.8	29
Diabetes	4.1	6.8	63
High blood pressure	14.7	18.1	67
Heart disease	3.0	5.0	66

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	16.6	34.3	72
Cardiovascular disease	739.4	916.9	71
Cerebrovascular disease	135.4	133.2	46
COPD	124.9	171.8	59
Diabetes	66.8	100.2	67
Hypertension	8.9	18.0	70
Ischemic heart disease	247.1	314.8	63
Lower respiratory disease	144.1	208.9	65.5
Respiratory disease	437.4	599.7	72
Stroke	117.9	112.5	41

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,100	\$ 2,750	68
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$21,650	\$ 22,050	42.5
# of patients that are complex	10,500	680,115	
% of all patients (health care users) that are complex	4.1%	5.8%	73
<b>High cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$34,850	\$ 37,700	63.5
# of patients that are high cost users	9,775	581,670	
% of patients that are high cost users	3.8%	5.0%	67

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## EASTERN CHAMPLAIN SUB-REGION (1103)

- The prevalence rate (per 100) for the population with arthritis (14+) was 24.3 (Ontario - 17.3). **Eastern Champlain** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with diabetes was 9.6 (Ontario - 6.8). **Eastern Champlain** sub-region's rate was **significantly higher** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 411.5 (Ontario - 171.8). **Eastern Champlain** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 466.7 (Ontario - 208.9). **Eastern Champlain** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **Eastern Champlain** sub-region was \$3,200 (Ontario - \$2,750).
- 6.5% of patients from **Eastern Champlain** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Eastern Champlain** sub-region was \$23,200 (Ontario - \$22,050).
- 6.3% of patients from **Eastern Champlain** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Eastern Champlain** sub-region was \$36,200 (Ontario - \$37,700).



### Chronic Conditions, Complex Patients

Condition	Eastern Champlain	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	24.3	17.3	14
Asthma	10.1	7.8	14
Diabetes	9.6	6.8	6
High blood pressure	19.6	18.1	36
Heart disease	6.3	5.0	16

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
AGE STANDARDIZED rate per 100,000			
Asthma	52.2	34.3	9
Cardiovascular disease	1,046.3	916.9	30
Cerebrovascular disease	128.1	133.2	52
COPD	411.5	171.8	4
Diabetes	137.6	100.2	22
Hypertension	15.8	18.0	46
Ischemic heart disease	375.7	314.8	30
Lower respiratory disease	466.7	208.9	4
Respiratory disease	930.9	599.7	11
Stroke	109.3	112.5	48

Complex Patients and high cost users, 2015/16	Ontario	Ranking*	
Mean health care cost per user \$	\$3,200	\$ 2,750	23.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$23,200	\$ 22,050	26
# of patients that are complex	11,390	680,115	
% of all patients (health care users) that are complex	6.5%	5.8%	25
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$36,200	\$ 37,700	41
# of patients that are high cost users	10,935	581,670	
% of patients that are high cost users	6.3%	5.0%	26

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

#### WESTERN CHAMPLAIN SUB-REGION (1104)

- The prevalence rate (per 100) for the population with arthritis (14+) was 23.8 (Ontario - 17.3). **Western Champlain** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with high blood pressure was 23 (Ontario - 18.1). **Western Champlain** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with heart disease was 8.2 (Ontario - 5). **Western Champlain** sub-region's rate was **significantly higher** than Ontario.
- The mean health care cost per user in **Western Champlain** sub-region was \$3,300 (Ontario - \$2,750).
- 6.6% of patients from **Western Champlain** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Western Champlain** sub-region was \$23,450 (Ontario - \$22,050).
- 6.4% of patients from **Western Champlain** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Western Champlain** sub-region was \$36,800 (Ontario - \$37,700).

### Chronic Conditions, Complex Patients

Condition	Western Champlain	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	23.8	17.3	16
Asthma	9.1	7.8	22
Diabetes	7.2	6.8	34
High blood pressure	23.0	18.1	9
Heart disease	8.2	5.0	2

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
AGE STANDARDIZED rate per 100,000			
Asthma	28.5	34.3	51
Cardiovascular disease	1,078.3	916.9	23
Cerebrovascular disease	150.0	133.2	33
COPD	241.2	171.8	20
Diabetes	116.1	100.2	33
Hypertension	19.2	18.0	27
Ischemic heart disease	391.7	314.8	19
Lower respiratory disease	270.2	208.9	24
Respiratory disease	631.8	599.7	39
Stroke	122.1	112.5	37

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$3,300	\$ 2,750	20
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$23,450	\$ 22,050	23.5
# of patients that are complex	8,630	680,115	
% of all patients (health care users) that are complex	6.6%	5.8%	21
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$36,800	\$ 37,700	34
# of patients that are high cost users	8,300	581,670	
% of patients that are high cost users	6.4%	5.0%	22

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

#### EASTERN OTTAWA SUB-REGION (1105)

- The age standardized rate (per 100,000) for hospitalization for hypertension is 9.7 (Ontario - 18). [Eastern Ottawa](#) sub-region is among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in [Eastern Ottawa](#) sub-region was \$2,250 (Ontario - \$2,750).
- 4.4% of patients from [Eastern Ottawa](#) sub-region are complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in [Eastern Ottawa](#) sub-region was \$22,450 (Ontario - \$22,050).
- 4.0% of patients from [Eastern Ottawa](#) sub-region are high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in [Eastern Ottawa](#) sub-region was \$35,850 (Ontario - \$37,700).

### Chronic Conditions, Complex Patients

Condition	Eastern Ottawa	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	14.3	17.3	61
Asthma	8.3	7.8	33
Diabetes	8.0	6.8	27
High blood pressure	17.4	18.1	47
Heart disease	4.7	5.0	47

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
AGE STANDARDIZED rate per 100,000			
Asthma	26.2	34.3	58.5
Cardiovascular disease	800.7	916.9	62
Cerebrovascular disease	115.7	133.2	63
COPD	160.1	171.8	50
Diabetes	74.6	100.2	61
Hypertension	9.7	18.0	69
Ischemic heart disease	262.0	314.8	61
Lower respiratory disease	189.7	208.9	51
Respiratory disease	561.0	599.7	54
Stroke	103.6	112.5	59

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$2,250	\$ 2,750	65
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$22,450	\$ 22,050	33
# of patients that are complex	8,225	680,115	
% of all patients (health care users) that are complex	4.4%	5.8%	68
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$35,850	\$ 37,700	47.5
# of patients that are high cost users	7,585	581,670	
% of patients that are high cost users	4.0%	5.0%	65

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## Human Resources

### Physicians

- In 2016, there were approximately 3,678 physicians in Champlain LHIN.
  - This represents the equivalent of approximately 276 physicians for every 100,000 persons in Champlain LHIN.
  - The number of physicians in Champlain LHIN increased by close to 10% between 2013 and 2016 with higher growth occurring among specialists than family physicians.
- Between 2013 and 2016, there was an increase of approximately 150 family physicians in Champlain LHIN
  - The majority of the increase in Champlain LHIN occurred with 70 additional family physicians between 30-64 years of age and 49 additional family physicians between 65-74 years of age.
- In 2016, approximately 13% of family physicians in Champlain LHIN were at or beyond the age of retirement (65 years of age or older).

### Nurses

- In 2016, there were 15,024 total nurses in Champlain LHIN.
- The total number of nurses increased by 3% in Champlain LHIN between 2013 and 2016.
  - While the number of Registered Nurses in Champlain LHIN between 2013 and 2016 decreased, there were substantial increases in the number of Nurse Practitioners (30% increase) and Registered Practical Nurses (10% increase) during the same time period.
- In 2016, there were approximately 1125 nurses for every 100,000 residents of Champlain LHIN.

### Other Allied Health Professionals

- Between 2013 and 2016, the greatest growth in the number of allied health professionals in Champlain LHIN was among midwives (an increase of 8 or approximately 24%), pharmacists (an increase of 212 or about 19%) and audiologists (an increase of 16 or 17%).
- There was also notable growth in the number of occupational therapists (additional 65 or 13%), psychologists (additional 54 or 10%) and optometrists (additional 15 or 8%) in Champlain LHIN between 2013 and 2016.

Champlain LHIN					
Physicians	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Total Family Medicine Physicians</b>					
Number of family medicine physicians	1,543	1,620	1,631	1,693	9.7%
Rate per 100,000 population	119.3	124.0	123.8	126.8	6.3%
<b>Total Specialists</b>					
Number of specialists	1,792	1,877	1,928	1,985	10.8%
Rate per 100,000 population	138.5	143.6	146.4	148.7	7.3%
<b>Total Physicians</b>					
Number of total physicians	3,335	3,497	3,559	3,678	10.3%
Rate per 100,000 population	257.8	267.6	270.2	275.5	6.9%
<b>Family Physicians, by age group - count</b>					
Age <30	35			59	68.6%
Age 30-64	1,346			1,416	5.2%
Age 65-74	140			189	35.0%
Age 75+	22			29	31.8%
Grand Total	1,543			1,693	9.7%
Age 65+	162			218	34.6%
<b>Family Physicians, by age group – percent</b>					
Age <30	2.3%			3.5%	53.6%
Age 30-64	87.2%			83.6%	-4.1%
Age 65-74	9.1%			11.2%	23.0%
Age 75+	1.4%			1.7%	20.1%
Age 65+	10.5%			12.9%	22.6%

Champlain LHIN					
Nurses	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Registered Nurses</b>					
Number of RNs	10,678	10,699	10,685	10,608	-0.7%
Rate per 100,000 population	824.1	818.6	811.1	794.6	-3.6%
<b>Registered Practical Nurses</b>					
Number of RPN nurses	3,789	3,891	4,135	4,178	10.3%
Rate per 100,000 population	292.4	297.7	313.9	313.0	7.0%
<b>Nurse Practitioners</b>					
Number of NP nurses	183	208	221	238	30.1%
Rate per 100,000 population	14.1	15.9	16.8	17.8	26.2%
<b>Total Nurses</b>					
Total Nurse - Number of nurses	14,650	14,798	15,041	15,024	2.6%
Total Nurse - Rate per 100,000 population	1,130.6	1,132.3	1,141.8	1,125.4	-0.5%

Champlain LHIN					
Other Regulated Health Professionals	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Audiologists</b>					
Audiologist - Number	94	102	103	110	17.0%
Audiologist - Rate per 100,000 population	7.3	7.8	7.8	8.2	13.6%
<b>Midwives</b>					
Midwife - Number	51	58	62	63	23.5%
Midwife - Rate per 100,000 population	3.9	4.4	4.7	4.7	19.9%
<b>Occupational Therapists</b>					
Occupational Therapist - Number	505	527	551	570	12.9%
Occupational Therapist - Rate per 100,000 population	39.0	40.3	41.8	42.7	9.6%
<b>Opticians</b>					
Optician - Number	200	203	210	205	2.5%
Optician - Rate per 100,000 population	15.4	15.5	15.9	15.4	-0.5%
<b>Optometrists</b>					
Optometrist - Number	191	197	194	206	7.9%
Optometrist - Rate per 100,000 population	14.7	15.1	14.7	15.4	4.7%
<b>Pharmacists</b>					
Pharmacist - Number	1,137	1,214	1,273	1,349	18.6%
Pharmacist - Rate per 100,000 population	87.7	92.9	96.6	101.1	15.2%
<b>Psychologists</b>					
Psychologist - Number	536	559	565	590	10.1%
Psychologist - Rate per 100,000 population	41.4	42.8	42.9	44.2	6.8%
<b>Speech-Language Pathologists</b>					
Speech-Language Pathologist - Number	301	301	297	302	0.3%
Speech-Language Pathologist - Rate per 100,000 population	23.2	23.0	22.5	22.6	-2.6%



## Primary Care

### Primary Care Enrolment

- More than 1 million (n=1,015,778) Champlain LHIN residents were enrolled with a PEM and 337,315 residents were affiliated with FFS physicians (i.e. not enrolled).
- One quarter of LHIN residents (25%) were affiliated with FFS physicians in 2016/2017, although most residents were enrolled with a FHO.
- There are 103 practices with 1271 physicians in the Champlain LHIN, and approximately one-quarter of physicians were affiliated with FFS (n=101), and more than half (52%, n=656) of physicians were affiliated with a FHO.

### Selected Measures from the Health Care Experience Survey

#### Self-reported access to, and satisfaction with, primary care

	Ontario (2017)	LHIN (2017)	Range Across Champlain sub- regions (2014-2017)
Percentage who are satisfied with health care in their community	87%	87%	87% to 91%
Percentage with primary care providers (attached patients)	94%	95%	91% to 98%
Percentage who saw their primary care provider within the same day/next day when sick	40%	36%	33% to 46%
Percentage who went to ED for something that could have been treated by primary care provider	42%	45%	30% to 64%
Percentage who found it difficult to access care after-hours without going to an emergency department	53%	55%	48% to 75%
Percentage who went to walk-in clinic in past 12 months	30%	22% <sup>L</sup>	7% to 33%
Percentage who went to a walk in clinic for something that could have been treated by provider if they were available	92%	88%	86% to 92%*

*H=significantly higher than the province*

*L=significantly lower than the province*

*\* some sub-regions not reportable*

- Eighty-seven percent (87%) of Champlain residents were satisfied with health care in their community.
  - At 91%. **Eastern Ottawa** sub-region residents' satisfaction is **significantly higher** than the provincial proportion (87%).
- In 2017, 95% of Champlain adults (aged 16 years and older) had a primary care provider.
  - **Eastern Ottawa** had a **significantly higher** attachment rate at 98% (one of the highest in the province). On the other hand, **Central Ottawa** reported a **significantly lower** attachment rate at 90%.
- In 2017, 36% of Champlain LHIN residents were able to see their primary care provider within the same day/next day when they were sick.
  - **Western Champlain** reported a **significantly lower** proportion than the rest of the province (33%).
- Forty-five (45%) percent of Champlain LHIN went to the ED for something that could have been treated by their primary care provider.
  - **Western Champlain** (64%) sub-region is **significantly higher** than the provincial proportion.

- Most (55%) of Champlain LHIN residents found it difficult to access after-hours care without going to the ED. There was substantial variation observed across the LHIN as well.
  - **Eastern Champlain** (68%) and **Western Champlain** (75%) sub-regions reported **significantly higher** proportions than the provincial proportion.
- In the Champlain LHIN, 22% of adults attended walk-in clinics in the previous 12 months, **significantly lower** than the provincial value (30%).
  - **Eastern Champlain** (15%) and **Western Champlain** (7.0%) were **significantly lower** than the provincial proportion.
  - Eighty-eight percent (88%) felt that their walk-in visit could have been addressed by a primary care provider if one had been available.

## Community Care

- Champlain LHIN ranks second lowest in CSS\_Community Group Participants Patient Attendances per 1,000 population with 12 (province is 33).
- Champlain LHIN ranks second lowest in CSS\_Community Group Participants Patient Attendances per 1,000 population 75+ with 167 (province is 465).

## Mental Health

### Wait Time for Community Services

- Day/night care had the longest median wait times among the community mental health (MH) services in Champlain LHIN (120 days) in 2017/18, 92 days longer than the province's median wait for that service.
- Among the substance abuse (SA) services provided in Champlain LHIN, case management/supportive counselling and services had the longest median wait times (47 days), 13 days longer than the province's median wait in 2017/18.
- For problem gambling, only community treatment is provided in this LHIN. The median wait time for this treatment was 4 days longer than the provincial median wait of 10 days.

### Mental Health and Substance Abuse Emergency Department Visits

- In 2016/17, there were 24,957 unscheduled ED visits for Champlain residents where the main problem was a MH/SA condition. In total, there were 33,484 visits with a MH/SA condition in any of the diagnostic fields.
- Between 2013/14 and 2016/17, there was 15.1 % growth in visits with a MH/SA main problem diagnosis (lower than the province's value of 20.9%) and 21.2% growth in visits with a MH/SA condition in any diagnostic field (higher than the province's value of 21.1%).
- The MH/SA ED visit rate per 1,000 population was lower than the provincial value (18.7 compared to 19.2). Between 2013/14 and 2016/17 Champlain LHIN residents had the second lowest growth in visit rate (main diagnosis) in the province at 11.5%.
- Visits with a MH/SA main problem diagnosis accounted for 4.2 % of all ED visits for Champlain LHIN residents.
- In 2016/17, there were 351 ED visits of Champlain residents for opioid overdose. . Of those, 41.9% were accidental.
- The crude rate of ED visits for opioid overdose in FY2016/17 for Champlain residents was 2.6, lower than the provincial value (3.5). Between 2013/14 and 2016/17, there was a 26.6% growth in the visit rate for opioid overdose for all Champlain residents, lower than the province (48.4%).

### Unscheduled emergency department utilization for mental health and substance abuse conditions, Champlain LHIN and Ontario residents, 2016/17

Measure	Champlain LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>†</sup>
<b>LHIN of patient<sup>†</sup></b>				
Main problem visits	24,957	268,514	15.1%	
% of total ED visits	4.2%	4.3%	-	
Any problem visits	33,484	338,260	21.2%	
% of total ED visits	5.6%	5.5%	-	
Main problem, visits per 1,000	18.7	19.2	11.5%	
Any problem, visits per 1,000	25.1	17.1%	17.4%	
ED visits for opioid overdose	351	4,831	30.5%	
% of visits that were accidental	41.9%	50.1%	-	
Crude rate per 10,000 population	2.6	3.5	26.6%	

<sup>†</sup>LHIN of patient results for Ontario exclude out-of-province residents

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

### Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility

- In 2016/17, there were 26,717 unscheduled ED visits in Champlain LHIN hospitals, where the main problem was a MH/SA condition. 1.9% of these visits were made by homeless individuals.

- There were 6,104 admissions and 6,569 active cases who received treatment in adult designated MH units in Champlain LHIN hospitals. There were 6,145 discharges from these units with the total days of discharge patients equal to 157,996 days. The mean length of stay in Champlain LHIN MH units was 25.7 days, longer than all Ontarians (24.9 days). Residents from outside the LHIN accounted for 10.1% of the active cases treated in Champlain LHIN.
- Between 2013/14 and 2016/17, active cases, admissions and discharges increased in Champlain LHIN hospitals by 12.9%, 12.2% and 13.5%, respectively. The total days of discharged patients increased by 18.0%.
- Schizophrenia and psychotic disorders (29.9%), short stay (25.8%) and bipolar and depressive disorders (25.7%) accounted for the largest proportions of active cases in Champlain LHIN hospitals in 2016/17. Compared with the provincial values, Champlain had larger proportions of active cases for schizophrenia and psychotic disorders, neurocognitive disorders, personality disorders and feeding and eating disorders.
- There were 6,174 active cases, 5,773 admissions and 5,822 discharges for Champlain LHIN residents from Ontario adult designated MH units. Mean length of stay for Champlain LHIN residents was similar to the province (24.9 days compared to 24.8 days). 4.3% of Champlain LHIN resident active cases received treatment in hospitals outside the LHIN. Compared with the provincial rates, Champlain LHIN residents had slightly higher rates of active cases, admissions, and discharges per 100,000 population age 15+.
  - By sub-region, [Western Champlain](#) had the 8<sup>th</sup> highest crude rate of admission (725.7 per 100,000 population) among all 76 sub-regions.
- Active cases, admissions, discharges, total days and the associated rates increased for Champlain LHIN residents between 2013/14 and 2016/17.

**Adult designated mental health unit utilization, Champlain LHIN hospitals and residents, 2016/17**

Measure	Champlain LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient</b>				
Active cases	6,174	64,523	11.8%	
Admissions	5,773	60,197	11.9%	
Discharges	5,822	60,607	13.8%	
Total Days	145,161	1,504,690	6.8%	
Mean Length of Stay	24.9	24.8	-	
% Outflow Active Cases	4.3%	-	-	2 <sup>nd</sup> lowest
Active Cases per 100,000 (age 15+)	549.3	548.5	8.1%	
Admission per 100,000 (age 15+)	513.7	511.7	8.3%	
Discharges per 100,000 (age 15+)	518.0	515.2	10.0%	
<b>SCIPP Categories - % of total active cases</b>				
Short Stay	25.5%	27.4%	-	
Schizophrenia and other psychotic disorders	27.9%	27.0%	-	
Neurocognitive disorders	5.1%	3.1%	-	
Bipolar and depressive disorders	27.1%	29.6%	-	
Personality disorders	4.1%	3.0%	-	
Feeding and eating disorders	0.8%	0.4%	-	
Substance Use disorders	5.6%	5.5%	-	
Other disorders	3.9%	4.0%	-	
<b>LHIN of hospital</b>				
Active cases	6,569	64,738	12.9%	
Admissions	6,104	60,383	12.2%	
Discharges	6,145	60,795	13.5%	
Total Days (discharged patients only)	157,996	1,512,754	18.0%	
Mean Length of Stay	25.7	24.9	-	
% Inflow Active Cases	10.1%	-	-	

‡Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

## Surgery & Diagnostic Imaging

### Day Surgery and Cardiac Catheterization Utilization

#### Day Surgery and Cardiac Catheterization Visits

- In 2016/17, there were 135,051 day surgery and ambulatory cardiac catheterization visits to Champlain LHIN hospitals. Residents from outside the LHIN accounted for 9.6% of the visits.
- Between 2013/14 and 2016/17, there was an increase of 8.5% in Champlain LHIN hospital's day surgery and cardiac catheterization visits.
- There were 126,032 day surgery and ambulatory cardiac catheterization visits for Champlain LHIN residents. There was an increase in both the number and rate of visits between 2013/14 and 2016/17.
- In 2016/17, 3.1% of these visits occurred in hospitals outside the LHIN.
- The following sub-regions had among the eight lowest outflow rates to other LHINs within all sub-regions:
  - **Central Ottawa** had the 2<sup>nd</sup> lowest outflow rate.
  - **Western Ottawa** had the 5<sup>th</sup> lowest outflow rate.
  - **Eastern Ottawa** had the **lowest** outflow rate.
- Champlain LHIN residents had 94.4 day surgery and cardiac catheterization visits per 1,000 population. This rate was higher than the provincial rate of 93.9.

#### Day surgery and ambulatory cardiac catheterization visits, Champlain LHIN and Ontario, 2016/17

Measure	LHIN	Comments	Ontario†	LHIN % change 2013-14 - 2016/17	Range within LHINs	Range within CH sub-regions
<b>LHIN of hospital</b>						
Visits	135,051		1,322,943	8.5%	27,727 - 158,077	
% Inflow visits	9.6%				0.7% - 58.4%	
<b>LHIN of patient</b>						
Total population	1,334,963		13,982,984	3.0%	235,148 - 1,893,948	
Visits	126,032		1,313,103	8.8%	28,401 - 157,644	20,085 - 34,695
% Outflow visits	3.1%	2 <sup>nd</sup> lowest			3.0% - 39.0%	0.9% - 8.7%
Visits per 1,000 population	94.4		93.9	5.4%	66.8 - 151.0	75.2 - 131.6
- age 0-17 years	23.9		22.2		13.9 - 38.4	
- age 18-44 years	43.4		46.5		34.8 - 85.5	
- age 45-64 years	127.3		125.3		93.9 - 183.0	
- age 65-79 years	248.1		239.9		176.5 - 318.4	
- age 80+ years	199.6		202.7		138.5 - 260.4	

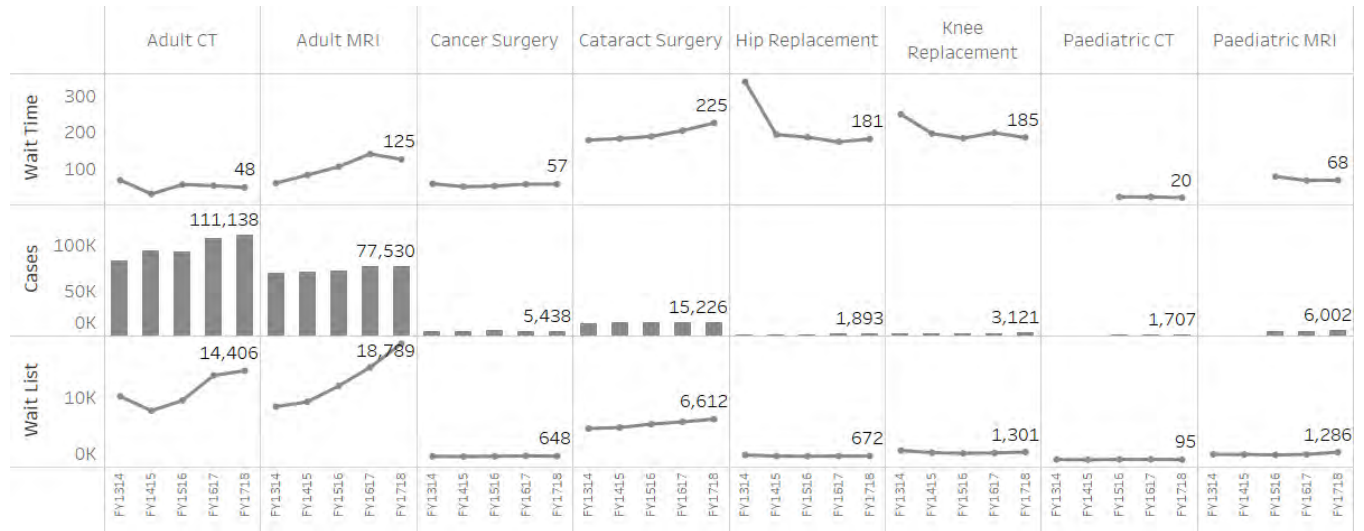
†LHIN of patient results for Ontario exclude out-of-province residents

## Surgical & Diagnostic Imaging Wait Times

### Champlain LHIN Priority Procedures:

#### Wait 2 90th Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

##### LHIN of Treatment



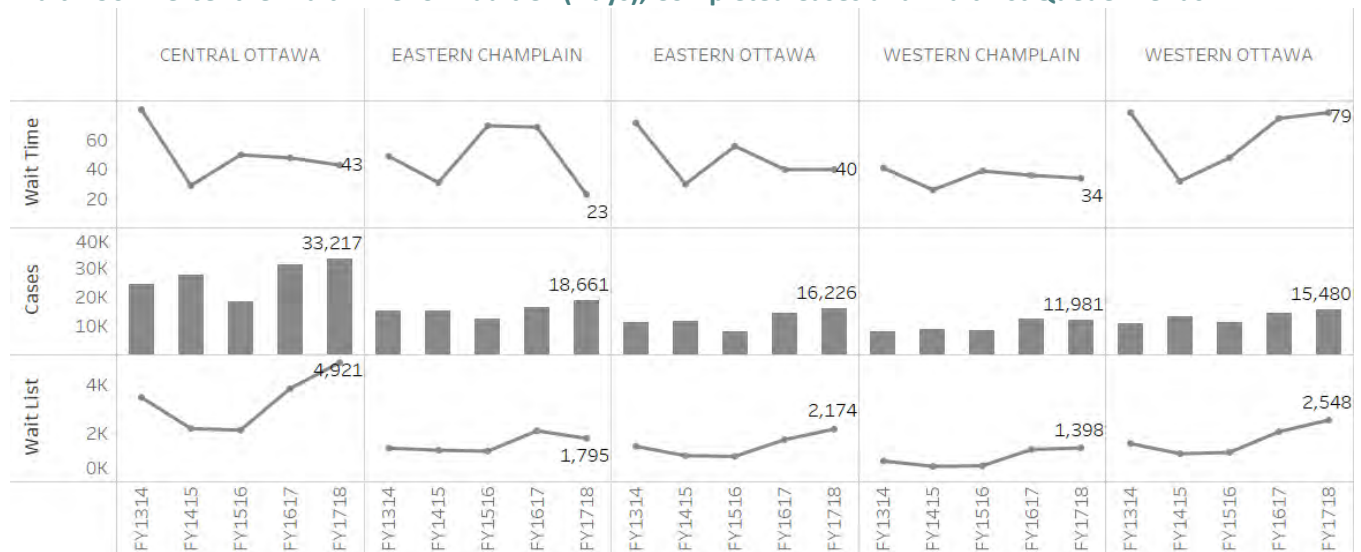


## Adult CT

- There were 111,138 adult CT scans completed in FY 2017-18; 2,667 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 48 days, 5 days shorter than the previous fiscal.
- In 2017/18, hospitals in the Champlain LHIN had the 5<sup>th</sup> longest wait time for adult CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 14,406 patients; 760 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Adult CT (Days), Completed Cases and Wait List Queue Trends



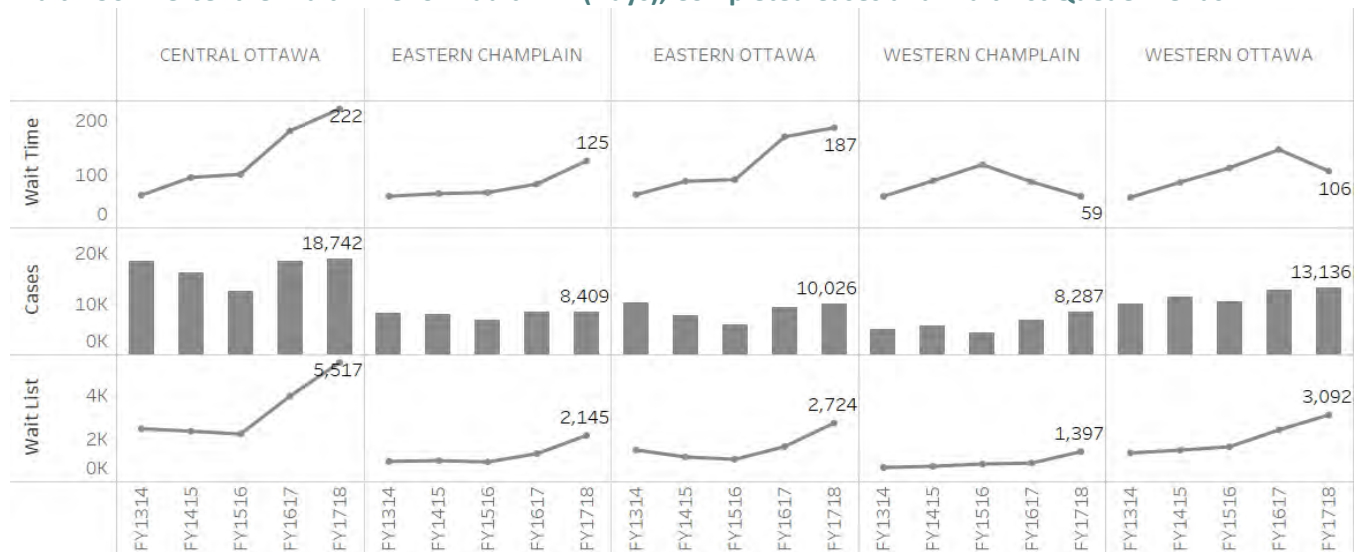
- Champlain LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 23 days to 79 days

## Adult MRI

- There were 77,530 adult MRI scans completed in FY 2017-18; 1,177 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 125 days and the **longest** of all reporting LHINs, 15 days shorter than the previous fiscal.
- In 2017/18, hospitals in the Champlain LHIN had the **longest** wait time for adult MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 18,789 patients; 3,850 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Adult MRI (Days), Completed Cases and Wait List Queue Trends



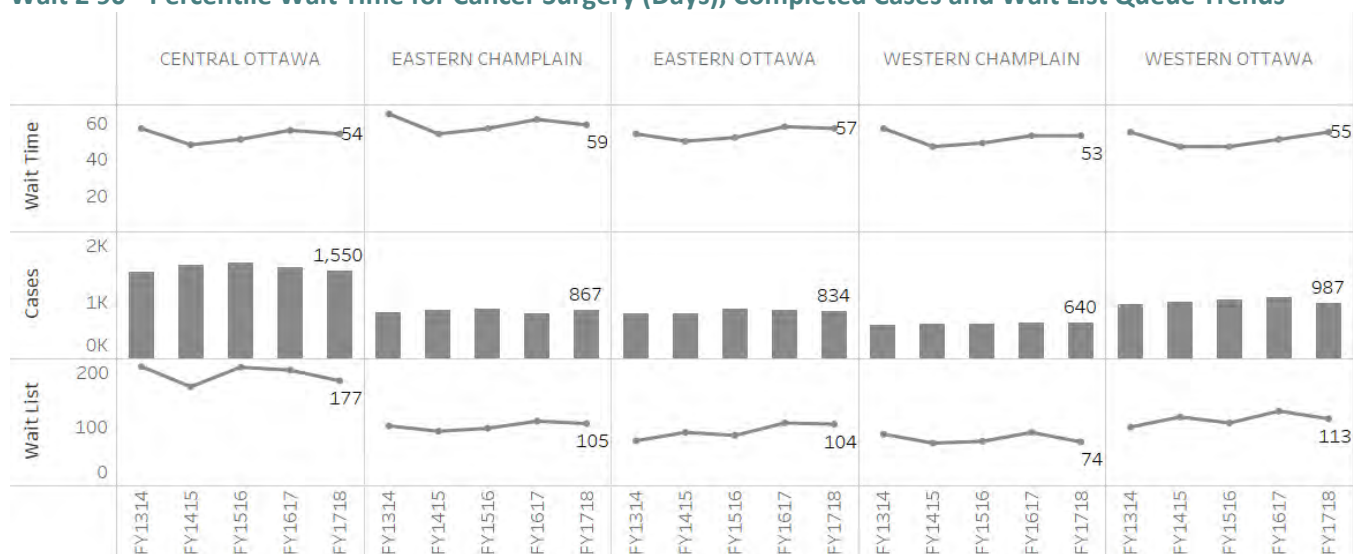
- Champlain LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 59 days to 222 days.
- Central Ottawa sub-region wait time of 222 days was the **longest** across the province for this period

## Cancer Surgery

- There were 5,438 cancer surgeries completed in FY 2017-18; 131 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 57 days, the same as the previous fiscal.
- In 2017/18, hospitals in the Champlain LHIN had the 5<sup>th</sup> longest wait time for cancer surgery.
- The wait list queue at the start of FY 2017-18 was 648 patients; 51 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Cancer Surgery (Days), Completed Cases and Wait List Queue Trends



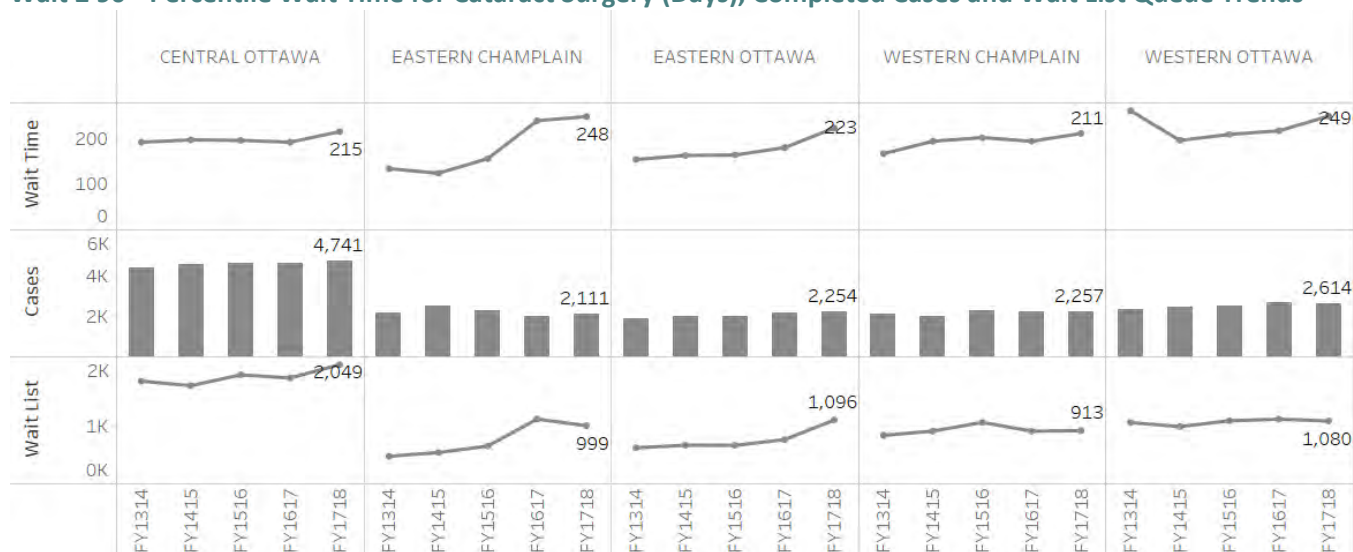
- Champlain LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 53 days to 59 days.

## Cataract Surgery

- There were 15,226 cataract surgeries completed in FY 2017-18; 179 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 225 days, 21 days longer than the previous fiscal.
- In 2017/18, hospitals in the Champlain LHIN had the 7<sup>th</sup> shortest wait time for cataract surgery.
- The wait list queue at the start of FY 2017-18 was 6,612 patients; 433 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Cataract Surgery (Days), Completed Cases and Wait List Queue Trends



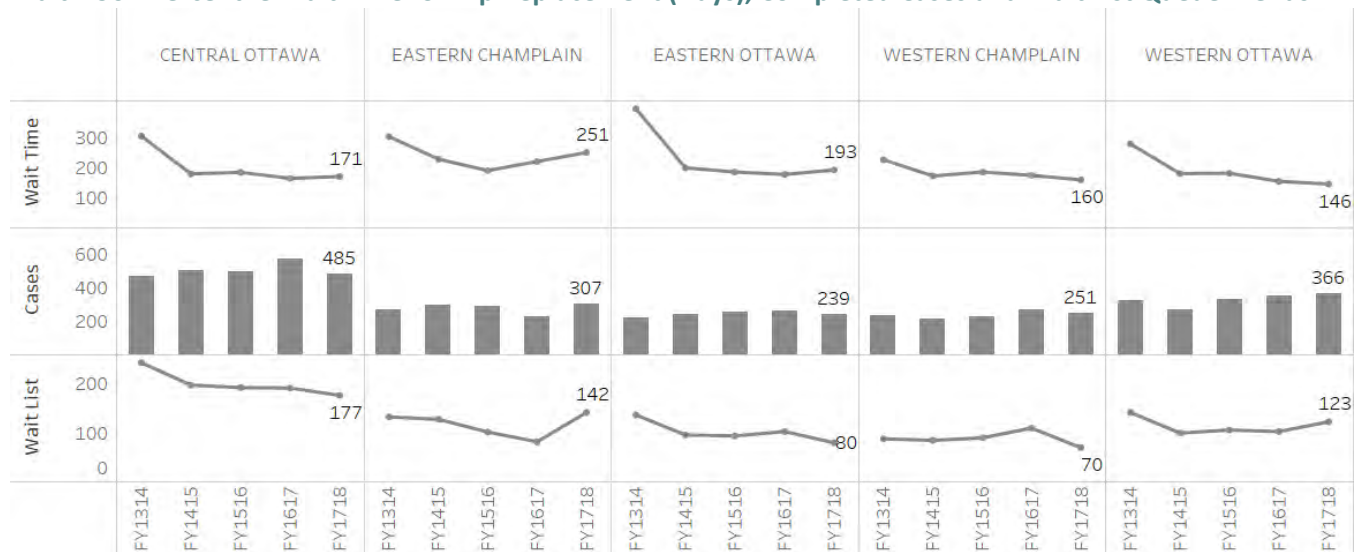
- Champlain LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 211 days to 249 days.

## Hip Replacement

- There were 1,893 hip replacement surgeries completed in FY 2017-18; 12 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 181 days, 8 days longer than the previous fiscal.
- In 2017/18, hospitals in the Champlain LHIN had the 5<sup>th</sup> shortest wait time for hip replacement surgery.
- The wait list queue at the start of FY 2017-18 was 672 patients; 7 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Hip Replacement (Days), Completed Cases and Wait List Queue Trends



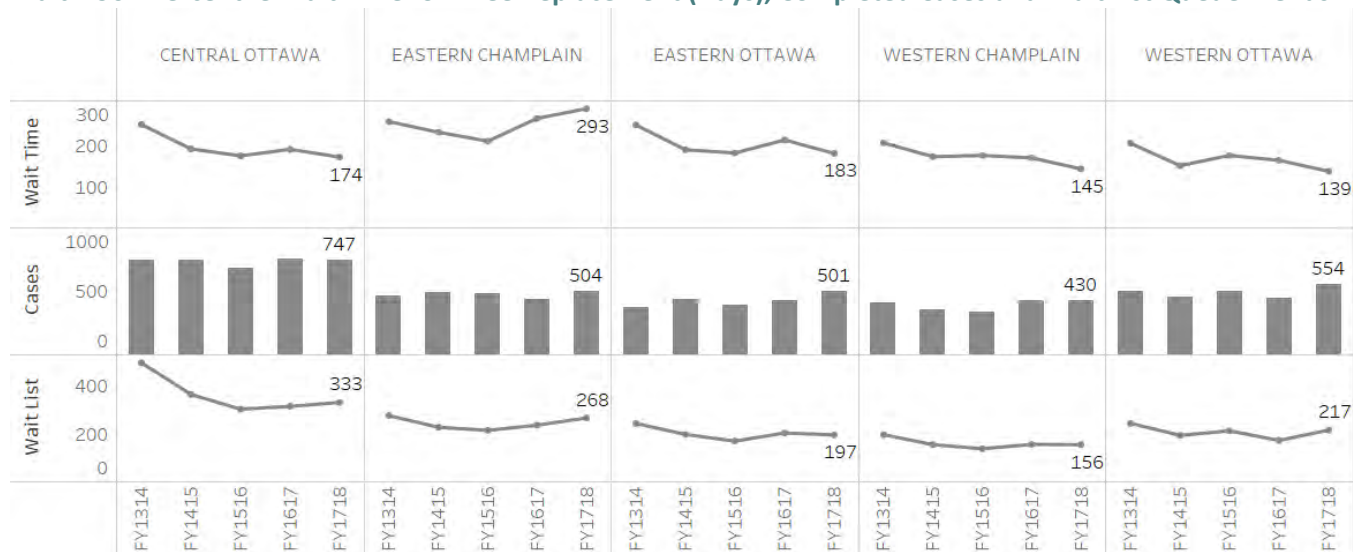
- Champlain LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 146 days to 251 days.

## Knee Replacement

- There were 3,121 knee replacement surgeries completed in FY 2017-18; 384 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 185 days, 13 days shorter than the previous fiscal.
- In 2017/18, hospitals in the Champlain LHIN had the 3<sup>rd</sup> shortest wait time for knee replacement surgery.
- The wait list queue at the start of FY 2017-18 was 1,301 patients; 128 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Knee Replacement (Days), Completed Cases and Wait List Queue Trends



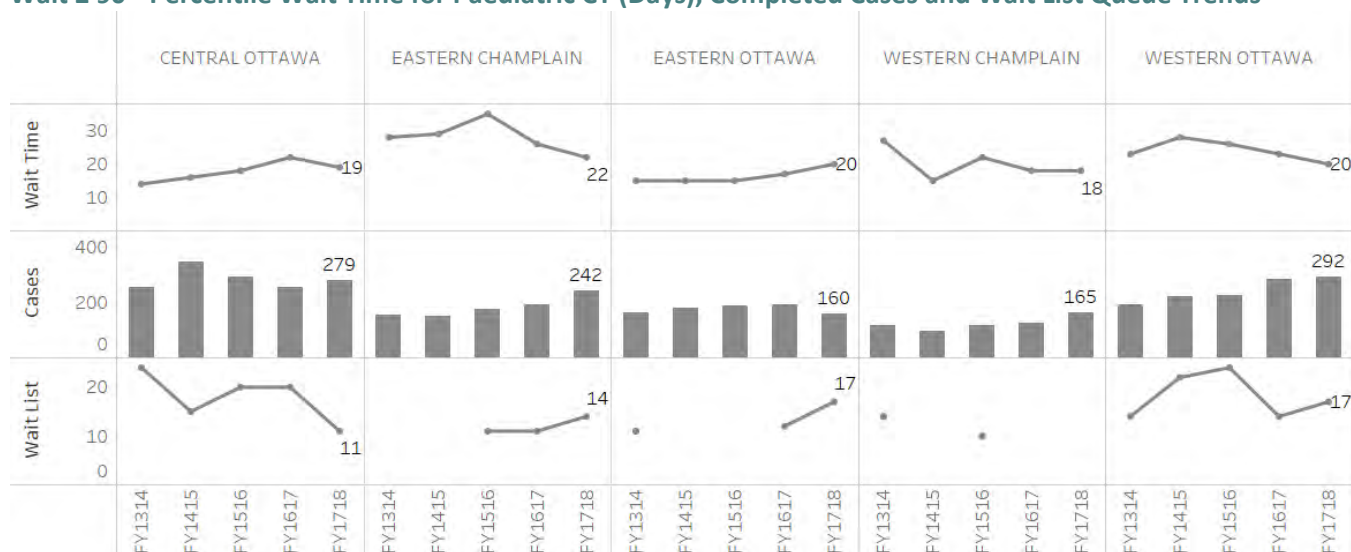
- Champlain LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 139 days to 293 days.

### Paediatric CT

- There were 1,707 paediatric CT scans completed in FY 2017-18; 199 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 20 days, 2 days shorter than the previous fiscal.
- In 2017/18, hospitals in the Champlain LHIN had the 2<sup>nd</sup> shortest wait time for paediatric CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 95 patients; 23 fewer queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90<sup>th</sup> Percentile Wait Time for Paediatric CT (Days), Completed Cases and Wait List Queue Trends



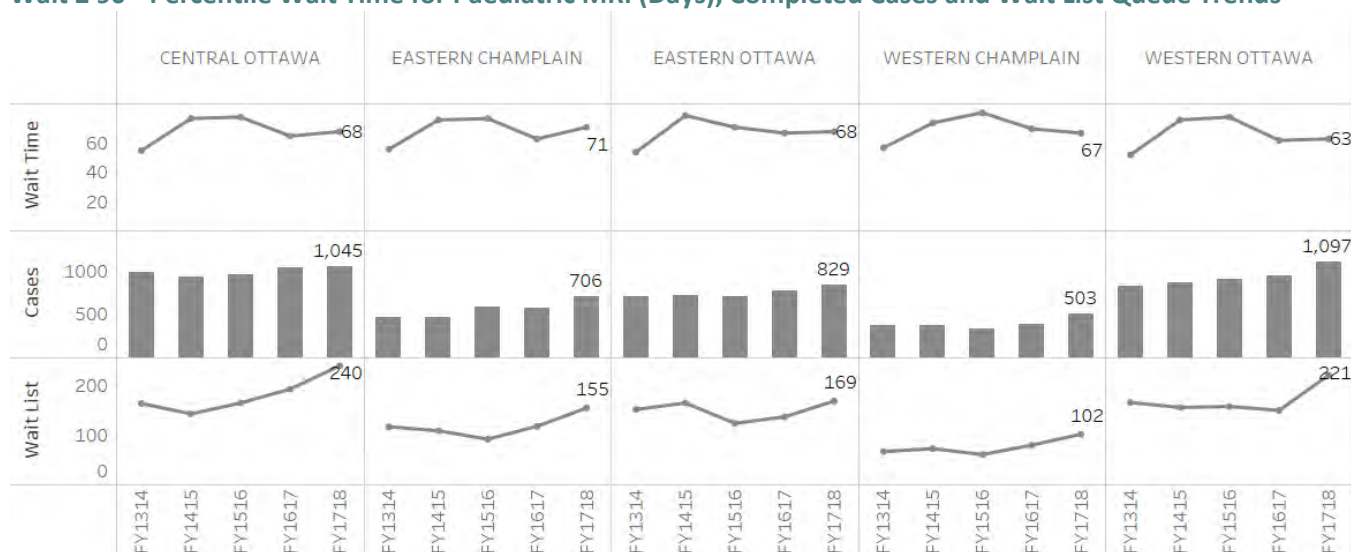
- Champlain LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 18 days to 22 days.

## Paediatric MRI

- There were 6,002 paediatric MRI scans completed in FY 2017-18; 728 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 68 days, 1 day longer than the previous fiscal.
- In 2017/18, hospitals in the Champlain LHIN had the 4<sup>th</sup> shortest wait time for paediatric MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 1,286 patients; 351 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90<sup>th</sup> Percentile Wait Time for Paediatric MRI (Days), Completed Cases and Wait List Queue Trends



- Champlain LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 63 days to 71 days.



## Oncology and Dialysis

### Ambulatory Oncology Utilization

- In 2016/17, there were 108,513 ambulatory oncology visits to hospital(s) in the Champlain LHIN.
- Since 2014/15, visits in Ontario have increased by 9%. The number of visits to Champlain LHIN hospitals increased by 15% and visits for CE LHIN residents have increased by 23%.
- In 2016/17, ambulatory oncology visits per 1,000 population for residents of Champlain LHIN is 81.4 (Ontario - 75.7).
- Champlain is among the 4 highest visit rates among all LHINs in age group 0-17 years (5.7 vs. Ontario - 5.0), age group 18-44 years (16.8 vs. Ontario - 15.9), age group 45-64 years (115.6 vs. Ontario - 106.7), age group 80+ years (211.5 vs. Ontario - 191.6).
- At sub-region level, the lowest (bottom 8) rates among all sub-regions were found
  - In age group 18-44 years, [Eastern Champlain](#) (2.6) and [Western Champlain](#) (3.1) (Ontario - 15.9).
  - In age group 45-64 years, [Eastern Champlain](#) (16.4) and [Western Champlain](#) (21.2) (Ontario - 106.7).
  - In age group 65-79 years, [Eastern Champlain](#) (39.4) and [Western Champlain](#) (39.2) (Ontario - 255.4).
  - In age group 80+ years, [Eastern Champlain](#) (7.5) and [Western Champlain](#) (17.8) (Ontario - 191.6).
- In age group 80+ years, sub-regions [Western Ottawa](#) (242.1) and [Eastern Ottawa](#) (276.7) are among the 8 highest visit rates in Ontario. (Ontario - 191.6).
- 0.5% of ambulatory oncology visits by Champlain LHIN residents were to hospitals outside of Champlain LHIN.
- 0.4% of ambulatory oncology visits to Champlain LHIN hospitals were by non-Champlain LHIN residents.

Ambulatory Oncology	Champlain	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory oncology visits	108,513	1,059,358	3rd highest	Increase	
% Inflow oncology visits	0.4%				
<b>LHIN of patient</b>					
Ambulatory oncology visits	108,622	1,057,888		Increase	2,354 -33,328
% Outflow oncology visits	0.5%				
Visits per 1,000 population	81.4	75.7		Increase	13.0 -73.4
Visit rate/1,000 population age 0-17 years	5.7	5.0	3rd highest		3.0 -5.6
Visit rate/1,000 population age 18-44 years	16.8	15.9	4th highest		2.6 -18.1
Visit rate/1,000 population age 45-64 years	115.6	106.7	4th highest		16.4 -111.9
Visit rate/1,000 population age 65-79 years	272.2	255.4			39.2 -292.3
Visit rate/1,000 population age 80+ years	211.5	191.6	3rd highest		7.5 -276.7

Ambulatory Oncology - Sub-Region	Champlain	Central Ottawa	Western Ottawa	Eastern Champlain	Western Champlain	Eastern Ottawa	Champlain LHIN, SR unassigned
<b>LHIN of hospital</b>							
Ambulatory oncology visits	108,513						
% Inflow oncology visits	0.4%						
<b>LHIN of patient</b>							
Ambulatory oncology visits~	108,622	32,758	21,831	2,674	2,354	15,677	33,328
% Outflow oncology visits	0.5%	0.1%	0.0%	7.9%	13.5%	0.0%	0.1%
Visits per 1,000 population	81.4	71.0	73.4	13.0	15.1	72.9	.
Visit rate/1,000 population age 0-17 years	5.7	3.0	4.9	4.6	5.6	4.8	
Visit rate/1,000 population age 18-44 years	16.8	13.0	18.1	2.6	3.1	13.2	
Visit rate/1,000 population age 45-64 years	115.6	109.7	111.9	16.4	21.2	98.1	
Visit rate/1,000 population age 65-79 years	272.2	222.6	281.4	39.4	39.2	292.3	
Visit rate/1,000 population age 80+ years	211.5	203.6	242.1	7.5	17.8	276.7	

### Ambulatory Dialysis Utilization

- In 2016/17, there were 98,248 ambulatory dialysis visits to hospital(s) in the Champlain LHIN.
- Since 2014/15, visits in Ontario have increased by 3%. The number of visits to Champlain LHIN hospitals decreased by 4% and visits for Champlain LHIN residents have decreased by 3%.
- The rate of ambulatory dialysis visits per 1,000 population for residents of Champlain LHIN is 70.4 (Ontario - 90.4). The rate is among the 4 lowest visit rates in the province.
- Champlain has among the 4 lowest visit rates in the province for each age group: 18-44 years is 12.8, 45-64 years is 82.3, 65-79 years (225.8) (Ontario - 285.3).
  - At sub-region level, residents in the 18-44 age group living in [Eastern Champlain](#) (5.9) and in [Western Champlain](#) (8.1) have one of 8 lowest visit rates in Ontario (21.8), while residents in age group 65-79 years living in [Western Ottawa](#) (128.7) has one of the 8 lowest visit rates in Ontario (285.3).
- 0.8% of ambulatory dialysis visits by Champlain LHIN residents were to hospitals outside of Champlain LHIN.
- 5% of ambulatory dialysis visits to Champlain LHIN hospitals were by non-Champlain LHIN residents.

*Note: Ambulatory dialysis visit volumes for residents in age group 0-17 are low to none across all sub-regions. Caution should be used when interpreting visit rates in this age group.*

Ambulatory Dialysis	Champlain	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory dialysis visits	98,248	1,269,794		Decrease	
% Inflow dialysis visits	5.2%				
<b>LHIN of patient</b>					
Ambulatory dialysis visits	93,945	1,264,676		Stable	1,241 -36,694
% Outflow dialysis visits	0.8%				
Visits per 1,000 population	70.4	90.4	2nd lowest	Stable	41.5 -101.4
Visit rate/1,000 population age 0-17 years	1.2	1.2			0.0 -3.6
Visit rate/1,000 population age 18-44 years	12.8	21.8	Lowest		5.9 -18.6
Visit rate/1,000 population age 45-64 years	82.3	105.3	3rd lowest		50.8 -130.5
Visit rate/1,000 population age 65-79 years	225.8	285.3	3rd lowest		128.7 -264.0
Visit rate/1,000 population age 80+ years	364.7	426.7			273.2 -533.7

Ambulatory Dialysis - Sub-Region	Champlain	Central Ottawa	Western Ottawa	Eastern Champlain	Western Champlain	Eastern Ottawa	Champlain LHIN, SR unassigned
<b>LHIN of hospital</b>							
Ambulatory dialysis visits	98,248						
% Inflow dialysis visits	5.2%						
<b>LHIN of patient</b>							
Ambulatory dialysis visits~	93,945	36,694	12,348	16,187	15,764	11,711	1,241
% Outflow dialysis visits	0.8%	0.0%	0.1%	1.4%	2.9%	0.0%	6.7%
Visits per 1,000 population	70.4	79.6	41.5	78.6	101.4	54.5	
Visit rate/1,000 population age 0-17 years	1.2	-	3.6	0.0	-	1.2	
Visit rate/1,000 population age 18-44 years	12.8	18.6	8.8	5.9	8.1	8.6	
Visit rate/1,000 population age 45-64 years	82.3	97.4	50.8	78.7	130.5	60.9	
Visit rate/1,000 population age 65-79 years	225.8	248.8	128.7	264.0	256.8	188.1	
Visit rate/1,000 population age 80+ years	364.7	338.1	370.3	273.2	412.2	533.7	

\*Ranking: Top or bottom 4 ranking in the province, compared to other LHINs.

^ Trend: "Increase/decrease" when there is a change more than 1%, otherwise, "stable"

~ There are some records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables with the LHIN name but as SR unassigned.

## Home Care

### Home Care Patient Referrals

- In 2017/18, there were 58,409 active home care patient referrals in the Champlain LHIN.
  - The **Central Ottawa** sub-region had the largest proportion of Champlain LHIN patient referrals in 2017/18 at 18,514.
  - Across Ontario's sub-regions, **Central Ottawa** had the sixth highest number of active patient referrals with 18,514.

### Active Patient Referrals 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
<b>Central Ottawa</b>	17,990	18,793	18,514	6 <sup>th</sup> highest
<b>Eastern Champlain</b>	11,382	11,619	11,763	
<b>Eastern Ottawa</b>	6,562	6,870	7,000	
<b>Western Champlain</b>	8,510	8,978	9,113	
<b>Western Ottawa</b>	9,846	10,409	10,667	
<b>Out of LHIN Region</b>	507	558	618	
<b>Unknown Region</b>	1,709	1,186	734	
<b>CHAM Total</b>	56,506	58,413	58,409	

\*Rank based on 2017/18 active patient referrals

### Home Care Referral Rate

- In 2017/18, Champlain LHIN's utilization rate was lower than Ontario's (42.9 compared to 48.2).
  - Within the LHIN, the utilization rate ranged from 32.6 referrals per 1,000 in **Eastern Ottawa** to 58.6 in **Western Champlain**.
  - Across Ontario's sub-regions, the utilization rate for **Eastern Ottawa** was the fifth lowest rate in the province.

### Referrals (per 1,000 population) 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
<b>Central Ottawa</b>	39.7	40.8	40.2	
<b>Eastern Champlain</b>	55.7	56.4	57.1	
<b>Eastern Ottawa</b>	31.0	32.0	32.6	5 <sup>th</sup> lowest
<b>Western Champlain</b>	55.0	57.7	58.6	
<b>Western Ottawa</b>	33.6	35.0	35.9	
<b>CHAM Total</b>	42.9	43.8	42.9	

\*Rank based on 2017/18 utilization rates

### Home Care Services

- In Champlain LHIN, there were 986,215 home care visits and 3,179,883 service hours in 2017/18.
- The rate of home care visits was 724.8 per 1,000 population and the rate of service hours was 2,336.9 per 1,000 population.
- The following sub-regions had among the eight highest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - **Eastern Champlain** had the 8<sup>th</sup> highest rate of personal support hours.
- The following sub-regions had among the eight lowest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - **Eastern Ottawa** had the 7<sup>th</sup> lowest rate of physiotherapy visits.
- Between 2014/15 and 2017/18 there was an increase in total visits of 12.5% and an increase in total hours of 18.9% in Champlain LHIN. During this period nursing visits increased by 15.4%, case management visits increased by 10.1% and personal support hours increased by 20.1%.
- Between 2014/15 and 2017/18 nursing visits rate increased by 10.8% and personal support hours rate increased by 15.3%.

## Summary of Home Care Service by Type, Champlain LHIN, 2017/18

	Champlain LHIN Residents	Ontario Residents*	Comments	LHIN % Change 2014/15 to 2017/18	Range across CH sub-regions**
<b>Service Visits</b>					
<b>All Visits†</b>	986,215	11,528,751		12.5%	108,902-322,374
Nursing Visit	633,874	7,539,458		15.4%	68,022-207,072
Physiotherapy	53,728	738,685		5.0%	5,683-17,597
Occupational Therapy	62,440	615,215		6.8%	8,240-21,889
Social Work	4,996	56,973		15.3%	522-1,727
Nutrition and Dietetic	3,692	47,949		4.3%	474-1,415
Speech Language Pathology	21,171	273,735		-4.0%	2,843-6,253
Case Management	206,197	2,211,107		10.1%	22,166-66,852
<b>Service Hours</b>					
<b>All Hours</b>	3,179,883	34,396,919		18.9%	384,209-1,126,859
Nursing Shift	170,977	2,366,020		-0.7%	16,906-59,625
Personal Support Work and Homemaking	3,003,953	31,319,568		20.1%	352,509-1,064,861
Respite	4,954	711,331		n/a	424-2,373
<b>Service Visits per 1,000 population</b>					
<b>All Visits per 1,000 population †</b>	724.8	810.2		8.1%	506.7-988.3
Nursing Visit	465.8	529.8		10.8%	316.5-645.9
Physiotherapy	39.5	51.9		0.8%	26.4-65.8
Occupational Therapy	45.9	43.2		2.6%	40.9-53.0
Social Work	3.7	4.0		10.8%	2.4-5.5
Nutrition and Dietetic	2.7	3.4		0.1%	2.2-3.1
Speech Language Pathology	15.6	19.2		-7.8%	12.6-21.0
Case Management	151.5	155.4		5.8%	103.1-219.2
<b>Service Hours per 1,000 population</b>					
<b>All Hours</b>	2,336.9	2,417.3		14.2%	1,787.7-3,004.9
Nursing Shift	125.7	166.3		-4.6%	104.5-144.8
Personal Support Work and Homemaking	2,207.6	2,201.0		15.3%	1,640.2-2,895.6
Respite	3.6	50.0	2 <sup>nd</sup> lowest	n/a	1.6-5.1

\*Not all LHINs offer the same services or report case management services in the same manner.

\*\*Service rates per 1,000 population are calculated using 2017/18 service levels divided by 2016 population estimates from the Ministry of Finance. Typically 2017 population estimates would be used but they were not available at the sub-region level at time of calculation.

†Includes visits for respiratory, psychology, and 'other' service types (not shown), which are not consistently reported/available in all LHINs.

n/a – not applicable due to significant changes in funding and recording

## Palliative Care

### Services Received at Home by Palliative Patients FY 2016/2017

	Provincial Ranking	LHIN	Range Across Ch sub-regions
Percent of patients who received palliative home visits(home servicers or physician) in the last 90 days of life	12	40%	38% to 44%
Percent of patients who received palliative home servicers in the last 90 days of life	12	29%	26% to 33%
Percent of patients who had physician home visits in the last 90 days of life	11	32%	27% to 35%
Percent of patients who receive palliative home services who died in hospital	7	24%	18% to 35%
Percent of palliative care patients discharged home from hospital with the discharge status "Home with Support"	9	86%	82% to 87%
Mean days spent at home/residence in last 6 months of life	9	161 days	159 to 162 days

*†Ranking in the province, compared to other LHINs.*

### Interpretation

- In 2016/2017, 40% of patients in Champlain LHIN received palliative home visits in the last 90 days of life, which is notably higher than the provincial value of 36%.
  - Within the Champlain LHIN, all sub-region report percentages receiving home visits in the last 90 days of life that are greater than the provincial percentage: [Eastern Champlain](#) reports the lowest percentage at 38% and [Eastern Ottawa](#) reports the highest percentage at 44%.
- In 2016/2017, the percent of patients in Champlain LHIN who received palliative home servicer visits in the last 90 days of life was higher than the province (29% vs 25%, respectively).
  - [Central Ottawa](#) sub-region reported 26% patients received home servicer visits in the last 90 days of life, which was the lowest percentage in the Champlain LHIN. [Eastern Ottawa](#) sub-region reports the highest percentage among the sub-regions at 33%.
- In the Champlain LHIN, the percentage of patients who received physician home visits in the last 90 days of life was 32%, which is 4% higher than the provincial value.
  - [Western Ottawa](#) and [Eastern Ottawa](#) sub-regions reported the highest percentage at 35%, respectively. [Eastern Champlain](#) sub-region reported the lowest percentage of patients who received physician home visit in the last 90 days of life at 27%.
- Across Ontario, Champlain LHIN reported that 24% of patients who received palliative home services who died in hospital, which is first among the 14 LHINs.
  - There is dramatic variation of percentages of patients who received palliative care who died in hospital across Champlain sub-regions. The [Western Ottawa](#) sub-region has the lowest percentage of palliative patients dying in hospital at 18%. On the other hand, [Western Champlain](#) reports 35% of patients who received palliative care died in hospital.



- Across LHINs, Champlain reports that 86% of palliative care patients discharged home with “Home with Supports” status in 2016/2017, slightly higher than the provincial 85.
  - Within Champlain, the sub-regions vary from 82% in [Western Champlain](#) sub-region to 87% in [Central Ottawa](#) and [Western Ottawa](#) sub-regions regarding palliative patients discharged with “Home with Supports” status.
- Champlain LHIN’s mean number of days at home among palliative patients in the last 6 months across all LHINs was 161 days, which is marginally higher than the provincial value of 160 days.
  - Champlain sub-regions vary in mean number of days that palliative patients spend at home in their last 6 months, ranging from 159 days in the [Western Champlain](#) and [Eastern Ottawa](#) sub-regions to 162 days in the [Western Ottawa](#) and [Eastern Champlain](#) sub-regions.

#### Palliative Hospital System Measures, Champlain (FY 2016/17)

	Provincial Ranking	LHIN	Range Across the sub-regions
Percent of patients who had one or more unplanned ED visits in the last 30 days of life	5	53%	51% - 56%
Percent of patients who had two or more unplanned ED visits in the last 30 days of life	12	16%	13% - 22%
Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days	10	22%	19% - 32%
Percent of people who die in hospital (all hospital settings and acute only)	4	48%	46% - 51%
Percent of people who die in acute hospital	4	40%	37% - 46%
Percent of patients who had two or more acute inpatient admissions in the last 30 days of life	2	5%	4% - 5%

#### LHIN Comparison

- Champlain LHIN was **significantly lower** than the province in percent of people who died in hospital (all hospital settings and acute only). It was **significantly higher** than the province in percent of patients who had two or more unplanned ED visits in the last 30 days of life.
  - For percent of patients who had one or more unplanned ED visits in the last 30 days of life, [Central Ottawa](#) was **significantly lower** than the province. [Eastern Champlain](#) was **significantly higher** than the province.
  - For percent of patients who had two or more unplanned ED visits in the last 30 days of life, [Central Ottawa](#) and [Eastern Ottawa](#) sub-regions were **significantly lower** than the province. [Eastern Champlain](#) and [Western Champlain](#) sub-regions were **significantly higher** than the province.
  - For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, [Central Ottawa](#) sub-region was **significantly lower** than the province.
  - For percent of people who died in hospital (all hospital settings and acute only), the following sub-regions were **significantly lower** than the province: [Central Ottawa](#), [Western Ottawa](#), [Eastern Champlain](#), and [Eastern Ottawa](#).

- For percent of people who died in acute hospital, **Central Ottawa** and **Western Ottawa** sub-regions were **significantly lower** than the province.

### Change Over Time

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of -1% was observed across the Champlain LHIN ranking 9th provincially.
  - Across sub-regions, **Western Ottawa** (0%) and **Eastern Champlain** (-2%) were observed highest and lowest, respectively.
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of 1% was observed across the Champlain LHIN ranking 5th provincially.
  - Across sub-regions, **Eastern Ottawa** (5%) and **Eastern Champlain** (-1%) were observed highest and lowest, respectively.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, a mean annual growth rate of 5% was observed across the Champlain LHIN ranking 1st provincially.
  - Across sub-regions, **Western Champlain** (11%) and **Central Ottawa** (1%) were observed highest and lowest, respectively.
- For percent of people who die in hospital (all hospital settings and acute only), a mean annual growth rate of -1% was observed across the Champlain LHIN ranking 6th provincially.
  - Across sub-regions, **Eastern Ottawa** (0%) and **Western Ottawa** (-2%) were observed highest and lowest, respectively.
- For percent of people who die in acute hospital, a mean annual growth rate of -4% was observed across the Champlain LHIN ranking 14th provincially.
  - Across sub-regions, **Western Champlain** (0%) and **Central Ottawa** (-6%) were observed highest and lowest, respectively.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, a mean annual growth rate of -8% was observed across the Champlain LHIN ranking 14th provincially.
  - Across sub-regions, **Western Champlain** (-2%) and **Central Ottawa** (-10%) were observed highest and lowest, respectively.

## Emergency Department

### Emergency Department Utilization

- In 2016/17, there were 681,329 ED visits to Champlain LHIN hospitals, an increase of 4.6% from 2013/14. In the same time-period, the number of ED visits in the province increased by 6.5%.
- Champlain's crude ED visit rate of 444.1 ED visits per 1,000 population represented a 1.0% increase in crude visit rate in the LHIN from 2013/14 during which time the provincial crude visit rate climbed by 3.0%.
- Age adjusted ED visit rates per 1,000 population were highest for seniors 80+ at 1,001 visits per 1,000 population, following by seniors aged 65-79 (538 visits / 1,000 population), children aged 0-17 (444 visits per 1,000 population), adults aged 18-44 years (394 visits per 1,000 population) while adults aged 45-64 years had the lowest usage rate in LHIN at 387 visits per 1,000 population, or less than 40% of the highest user age group.
  - **Eastern Ottawa** residents had the lowest ED visit rate of Champlain's 5 sub-regions, at 285 visits per 1000 population.
  - **Western Champlain** sub-region had the highest crude ED visit rate in the LHIN at 871 visits per 1,000 population, the 7<sup>th</sup> highest sub-region in the province.
  - Overall, 3 of Champlain's 5 sub-regions had crude ED visit rates below the provincial mean, while 2 had rates above the provincial mean.
- Between 2013/14 and 2016/17 the number of Champlain LHIN residents visiting the ED with lower acuity levels (CTAS IV and V) decreased 4.2% to 199,806 visits. During this same time-period, visits by Ontario residents with CTAS IV and V declined 2.2%.
- Between 2013/14 and 2016/17 the number of visits with CTAS III increased by 6.7% and CTAS I & II increased by 15.4%, while provincially these numbers increased by 9.4% and 15.8% respectively.
- Overall, Champlain LHIN ranked 6<sup>th</sup> highest in the province in proportion of ED visits by residents that were lower acuity (33.7% for Champlain, and 33.5% for the province).
  - 2 out of 5 of Champlain's sub-regions had a higher proportion of ED visits with lower acuity (CTAS IV and V) than the province.
  - **Central Ottawa** had the lowest proportion of ED visits with lower acuity of the LHIN's 5 sub-regions, at 26.0%, while **Western Champlain** had the highest at 48.3%.
- The most common causes for ED visits by Champlain LHIN residents were diseases or disorders of the digestive system, diseases or disorders of the ear, nose or throat, and diseases or disorders of the skin & breast and accounted for 10.0%, 8.6%, and 7.4% of ED visits by Champlain LHIN residents respectively.
- Follow-up examinations and other non-emergent conditions ranked 6<sup>th</sup> as a cause of ED visits and accounted for 5.6% of ED visits by Champlain LHIN residents.
- 14.9% of the patients who visited ED in Champlain LHIN hospitals arrived via ambulance in FY16/17, as compared to 15.6% for the province.
  - The proportion of ED visits that arrived by ambulance ranged from a low of 9.3% in **Western Champlain** sub-region to a high of 22.5% in **Central Ottawa**.
- 8.8% of the patients who visited ED in Champlain LHIN hospitals were admitted in FY16/17, as compared to 9.8% for the province.
  - The proportion of ED visits that resulted in a patient being admitted to hospital ranged from a low of 6.4% in **Western Champlain** sub-region to a high of 11.7% in **Central Ottawa** and **Eastern Ottawa** sub-regions.
- 4.3% of the patients who visited ED in Champlain LHIN hospitals left without completing treatment in FY16/17, as compared to 3.9% for the province. Champlain ranked 5<sup>th</sup> in the province in visits that left without completing treatment.

- 15.1% of ED visits to Champlain LHIN hospitals were by patients who did not reside in Champlain LHIN (inflow). This compares to 2.5% of ED visits by Champlain LHIN residents that were accessed in other LHINs (outflow).

#### Top 10 Reasons for Emergency Department Visits by LHIN, 2016/17

Leading CACS groups, by LHIN of patient	Champlain	
	#	% of total visits
(B128) Disease or Disorder Digestive System	59,014	10.0%
(B112) Disease or Disorder Ear, Nose or Throat	50,900	8.6%
(B132) Disease or Disorder Skin & Breast	44,150	7.4%
(B136) Disease or Disorder Musculoskeletal and Connective Tissue	35,278	6.0%
(B180) Contusion, Dislocation, Nerve & Other Soft Tissue Injury	34,572	5.8%
(B187) Follow-up Examination and Other Non Emergent Condition	33,293	5.6%
(B122) Other Disease or Disorder Cardiac System	31,416	5.3%
(B116) Disease or Disorder Respiratory System	30,235	5.1%
(B005) Other Condition with Acute Admission/Transfer	29,049	4.9%
(B188) Open Wound and Vascular Injury	22,484	3.8%

Measure—LHIN of Hospital	Champlain		Ontario	
	#	LHIN % change 2013/14-2016/17	#	Ontario % change 2013/14-2016/17
Visits	681,329	4.6%	6,312,121	6.5%
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	129,963	14.6%	1,284,741	15.9%
III (urgent)	307,274	7.3%	2,876,687	9.6%
IV & V (less urgent/non urgent)	242,993	-2.9%	2,128,914	-2.0%
<b>% visits by CTAS level†</b>				
I & II (resuscitation/emergent)	19.1%		20.4%	
III (urgent)	45.1%		45.6%	
IV & V (less urgent/non urgent)	35.7%		33.7%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	14.9%		15.6%	
% of visits that were admitted	8.8%		9.8%	
% of visits that left without completing treatment	4.3%		3.9%	
<b>% Inflow visits</b>	15.1%			

Measure—LHIN of Patient	Champlain		Ontario	
	#	LHIN % change 2013/14-2016/17	#	Ontario % change 2013/14-2016/17
Visits	592,822	4.2%	6,183,151	6.4%
ED visit rate/1,000 population	444.1	1.0%	442.2	3.0%
<b>Age-specific ED visit rates per 1,000 population</b>				
ED visit rate, age 0-17 years	444		429	
ED visit rate, age 18-44 years	394		411	
ED visit rate, age 45-64 years	387		388	
ED visit rate, age 65-79 years	538		516	
ED visit rate, age 80+ years	1,001		913	
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	119,415	15.4%	1,265,237	15.8%
III (urgent)	272,517	6.7%	2,825,385	9.4%
IV & V (less urgent/non urgent)	199,806	-4.2%	2,070,962	-2.2%
<b>% visits by CTAS level</b>				
I & II (resuscitation/emergent)	20.1%		20.5%	
III (urgent)	46.0%		45.7%	
IV & V (less urgent/non urgent)	33.7%		33.5%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	16.4%		15.8%	
% of visits that were admitted	9.4%		9.9%	
% of visits that left without completing treatment	4.3%		3.8%	
% Outflow visits	2.5%			

# ED Visit Utilization Summary, by sub-region of Patient Residence, 2016/17      Champlain LHIN

	Central Ottawa	Western Ottawa	Eastern Champlain	Western Champlain	Eastern Ottawa	LHIN	Ontario
<b>Sub-Region of Patient Residence</b>							
Visits	163,274	98,349	128,397	135,464	61,300	592,822	6,183,151
ED visit rate/1,000 population	354	331	623	871	285	444.1	442
% Outflow to other LHINs	1.9%	2.5%	1.5%	3.9%	2.1%	2.5%	
<b>Age-specific ED visit rates per 1,000 population</b>							
ED visit rate, age 0-17 years	363	327	593	932	295	444	429
ED visit rate, age 18-44 years	299	288	623	885	249	394	411
ED visit rate, age 45-64 years	321	286	521	720	238	387	388
ED visit rate, age 65-79 years	418	414	703	906	379	538	516
ED visit rate, age 80+ years	802	1031	1168	1341	917	1,001	913
<b># visits by CTAS level</b>							
# CTAS Level I & II visits	42615	21811	21498	15518	16449	119,415	12715
# CTAS Level III visits	78220	47103	63220	53452	27777	272,517	20741
# CTAS Level IV & V visits	42418	29399	43671	65483	17070	199,806	13353
<b>% visits by CTAS level</b>							
I & II (resuscitation/emergent)	26.1%	22.2%	16.7%	11.5%	26.8%	20.1%	20.5%
III (urgent)	47.9%	47.9%	49.2%	39.5%	45.3%	46.0%	45.7%
IV & V (less urgent/non urgent)	26.0%	29.9%	34.0%	48.3%	27.8%	33.7%	33.5%
<b>Other visit characteristics</b>							
% of visits that arrived by ambulance	22.5%	16.1%	14.5%	9.3%	19.6%	16.4%	15.8%
% of visits that were admitted	11.7%	8.9%	9.1%	6.4%	11.7%	9.4%	9.9%
% of visits that left without completing treatment	4.0%	3.2%	6.1%	3.8%	3.9%	4.3%	3.8%

## Emergency Department Performance

### LHIN Performance

- Emergency department (ED) volumes increased steadily from fiscal year 2013/14 (574,958 visits) to 2017/18 (604,744 visits), with Champlain LHIN sites ranging from 22,338 to 90,019 visits in fiscal year 2017/18.
- Overall, the 90<sup>th</sup> percentile ambulance offload time in fiscal year 2017/18 (56 mins) increased since fiscal year 2013/14 (28 mins), with a range of ten to 91 minutes across Champlain LHIN sites in fiscal year 2017/18.
- The 90<sup>th</sup> percentile time to physician initial assessment (PIA) increased from three to four hours between fiscal years 2013/14 and 2017/18, with the percent within the two hour target for PIA decreasing from 70% to 64% during that timeframe. In fiscal year 2017/18, the range of Champlain LHIN sites for the 90<sup>th</sup> percentile time to PIA was three to four hours and 55%-76% for percent within two hours to PIA.
- The 90<sup>th</sup> percentile consult request to arrival time remained stable (three hours) from fiscal year 2013/14 to fiscal year 2017/18, with Champlain LHIN sites ranging between one and nine hours in fiscal year 2017/18. The percentage of consults within two hours from request increased from fiscal year 2013/14 (84%) to 2017/18 (86%) with Champlain LHIN sites ranging from 56% to 97%.
- The 90<sup>th</sup> percentile time to disposition remained stable (eight hours) from fiscal year 2013/14 to 2017/18, with Champlain LHIN sites ranging from four to ten hours in fiscal year 2017/18.
- The 90<sup>th</sup> percentile ED length of stay remained the same, nine hours, from fiscal year 2013/14 to 2017/18, with Champlain LHIN sites ranging from five to 14 hours in fiscal year 2017/18.
- Non-admitted low acuity ED volumes decreased from fiscal year 2013/14 (205,348) to 2017/18 (200,711), with Champlain LHIN sites ranging from 9,434 to 33,353 in fiscal year 2017/18.
- For non-admitted low acuity visits, the ED length of stay and 90<sup>th</sup> percentile time to disposition both remained stable (five hours for both during all fiscal years) from fiscal year 2013/14 to 2017/18, with Champlain LHIN sites having a range of four to six hours for both measures in fiscal year 2017/18.
- The percent of non-admitted low acuity visits within target of four hours decreased over time, from 85% in fiscal year 2013/14 to 81% in 2017/18. In fiscal year 2017/18, Champlain LHIN sites ranged from 74% to 91%.
- The volumes of non-admitted high acuity ED visits increased steadily over time from fiscal year 2013/14 (316,329) to 2017/18 (344,575), with Champlain LHIN sites ranging from 7,654 visits to 58,836 visits in fiscal year 2017/18.
- For non-admitted high acuity visits, the 90<sup>th</sup> percentile time to disposition (eight hours), ED length of stay (eight hours) and percentage within target of eight hours (90%) all remained stable from fiscal year 2013/14 to 2017/18.
- The volumes of ED admissions had also increased steadily over time from fiscal year 2013/14 (53,183) to fiscal year 2017/18 (58,766). Across all years, the admission rates increased with acuity across all CTAS levels.
- For ED admissions, the 90<sup>th</sup> percentile time to disposition had stayed relatively stable over time; remaining 14 hours in both fiscal years 2013/14 and 2017/18, with Champlain LHIN sites ranging from seven to 17 hours in fiscal year 2017/18.
- For admitted ED visits, the 90<sup>th</sup> percentile time to inpatient bed and ED length of stay both increased from fiscal year 2013/14 to 2017/18; the time to inpatient bed from 18 to 22 hours, with Champlain LHIN sites ranging from three to 41 hours in fiscal year 2017/18, and the ED length of stay from 26 to 30 hours, with Champlain LHIN sites ranging from 12 to 49 hours in fiscal year 2017/18.
- The percentage within target of eight hours for ED admissions decreased from fiscal year 2013/14 (40%) to 2017/18 (33%), with Champlain LHIN sites ranging from 19% to 72% in fiscal year 2017/18.

## Emergency department visits, Champlain LHIN

Measure	Fiscal Year					Range across sites, FY 17/18
	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	
All emergency department visits						
ED Volumes (All)	574,958	585,594	594,448	599,858	604,744	22,338 - 90,019
Ambulance Offload Time - 90th Percentile (mins)	28	34	31	45	56	10 - 91
Time to PIA - 90th percentile	3	4	3	4	4	3 - 4
% with Time to PIA <= 2 Hours	70%	68%	69%	68%	64%	55% - 76%
Consult Request to Arrival - 90th Percentile	3	3	3	3	3	1 - 9
% of Consults with Consult Request to Arrival <= 2 Hrs	84%	86%	86%	87%	86%	56% - 97%
Time to Disposition (All) - 90th Percentile	8	8	8	8	8	4 - 10
ED LOS - 90th Percentile	9	9	9	9	9	5 - 14
Non-admitted low acuity ED visits						
ED Volumes - Non-Admitted Low Acuity	205,348	190,635	195,798	195,898	200,711	9,434 - 33,353
% Within Target of 4 Hrs - Non-Admitted Low Acuity	85%	86%	85%	83%	81%	74% - 91%
Time to Disposition for Non-Admitted Low Acuity - 90th Percentile	5	5	5	5	5	4 - 6
ED LOS for Non-Admitted Low Acuity - 90th Percentile	5	5	5	5	5	4 - 6
Non-admitted high acuity ED visits						
ED Volumes - Non-Admitted High Acuity	316,329	339,544	341,766	346,276	344,575	7,654 - 58,836
% Within Target of 8 Hrs - Non-Admitted High Acuity	90%	91%	92%	91%	90%	87% - 97%
Time to Disposition for Non-Admitted High Acuity - 90th Percentile	8	8	8	8	8	5 - 9
ED LOS for Non-Admitted High Acuity - 90th Percentile	8	8	8	8	8	5 - 9
Admitted ED visits						
ED Volumes - Admitted	53,183	55,359	56,791	57,634	58,766	327 - 13,765
Admission Rate - CTAS 1	55%	57%	55%	54%	54%	16% - 65%
Admission Rate - CTAS 2	22%	22%	23%	22%	23%	6% - 28%
Admission Rate - CTAS 3	10%	9%	10%	10%	10%	1% - 15%
Admission Rate - CTAS 4	1%	1%	1%	1%	1%	1% - 2%
Admission Rate - CTAS 5	1%	0%	1%	1%	1%	0% - 1%
Time to Disposition for Admitted - 90th Percentile	14	13	13	13	14	7 - 17
ED LOS for Admitted - 90th Percentile	26	27	26	29	30	12 - 49
% Within Target of 8 Hrs - Admitted	40%	39%	40%	35%	33%	19% - 72%
Time to Inpatient Bed - 90th Percentile	18	19	17	21	22	3 - 41



## Acute Care

### Acute Care Utilization by Residents of the Champlain LHIN

#### Acute Separations

- In 2016/17, there were 94,662 acute separations (discharges), 535,713 acute days, and 632,331 total days (including acute and alternate level of care days) for Champlain LHIN residents.
- The acute separation rate for Champlain LHIN residents was 71 separations per 1,000 residents in 2016/17 but varied substantially by sub-region of patient residence.
  - Rates were the lowest for residents of **Western Ottawa** sub-region and highest for residents of **Western Champlain**.
- From 2013/14 to 2016/17, the overall acute separation rate for Champlain LHIN residents increased by 1.7%.
  - **Central Ottawa** had the 4<sup>th</sup> highest volume of separations by sub-region of patient (30,139)

#### Acute Days

- The rate of acute days for Champlain LHIN residents was 401 acute days per 1,000 residents in 2016/17. Rates were the lowest for residents of the **Western Ottawa** sub-region (285 acute days per 1,000 residents) and highest for **Western Champlain** (587 acute days per 1,000 residents) in 2016/17.
  - Among sub-regions, residents of **Western Ottawa** were among the lowest ranking Ontario sub-regions for the rate of acute days per 1,000 residents.

#### Mean Length of Stay

- The mean total length of stay (including acute days and days waiting for an alternate level of care) for Champlain LHIN residents was 6.7 days, while the mean acute length of stay was 5.7 days in 2016/17, highest among LHINs.
  - Total length of stay varied among Champlain LHIN sub-regions, with **Western Champlain** ranked among the highest 8 Ontario sub-regions for total length of stay – with values higher than Ontario.

#### HIG Weight

- The Ontario HBAM Inpatient Grouper (HIG) (similar to CMG+) aggregates acute care separations with similar resource use and clinical characteristics based on most responsible diagnosis and/or principal intervention. The HIG weight is a relative cost value that reflects the resources consumed during each acute care stay. The mean HIG weight for Champlain LHIN residents declined slightly from 1.58 in 2014/15 to 1.57 in 2016/17, remaining above the provincial mean (1.55).
- The top 3 HIGs accounting for the highest proportion of acute care days for Champlain LHIN residents in 2016/17 were: 196-heart failure without coronary angiogram, 138-viral/unspecified pneumonia, and 810-palliative care.

## Acute Care Hospital Utilization (Excluding ALC) LHIN of Patient, Champlain LHIN, 2016/17

	Champlain LHIN Residents	Ontario Residents*	Rank among LHINs	Range across CH sub-regions**
<b>Acute Care Measures</b>				
Total Population	1,334,963	13,982,984		155,500 – 461,087
Acute Separations	94,662	1,028,979		13,222 – 30,139
Acute Separation Rate per 1,000 Population	71	74		56 – 96
Acute Days	535,713	5,455,693		71,360 – 175,438
Acute Days Rate per 1,000 Population	401	390		285 – 587
Total Days	632,331	6,477,528		81,962 – 216,926
Total Days Rate per 1,000 Population	474	463		336 – 674
Mean Acute LOS	5.7	5.3	Highest	5.1 – 6.1
Mean Total LOS	6.7	6.3	4 <sup>th</sup> Lowest	6.0 – 7.2
Mean HIG Weight	1.57	1.55		—
<b>Leading HIGs (Acute Care Days)†</b>				
(196) Heart Failure w/o Coronary Angiogram	16,242	175,995		1,596 – 5,201
(138) Viral/Unspecified Pneumonia	11,634	119,810		1,546 – 3,511
(810) Palliative Care	11,531	110,197		1,499 – 4,146

\* Ontario residents exclude Out-of-province

\*\* Excludes values for patients in “unassigned sub-region” from this LHIN. LHIN totals include patients in unassigned sub-region.

† Leading HIGs include Out-of-province for Ontario Values

## Acute Care Utilization for Champlain LHIN Facilities

- There were 102,708 acute separations, 583,676 acute days, and 680,251 total days at Champlain LHIN hospitals in 2016/17.

## Separations

- Separations increased by 4.4% between 2013/14 and 2016/17. During this same period, for Ontario hospitals overall, separations increased by 3.8%.

## Acute Days

- Acute days remained stable between 2013/14 and 2016/17. Acute days increased by 2.2%, for all Ontario hospitals overall, during this same period.
- Mean acute length of stay for 2016/17 at hospitals in the Champlain LHIN was 5.7 days. This is higher than the provincial result of 5.3 days and 2nd highest of all LHINs.

### Total Days

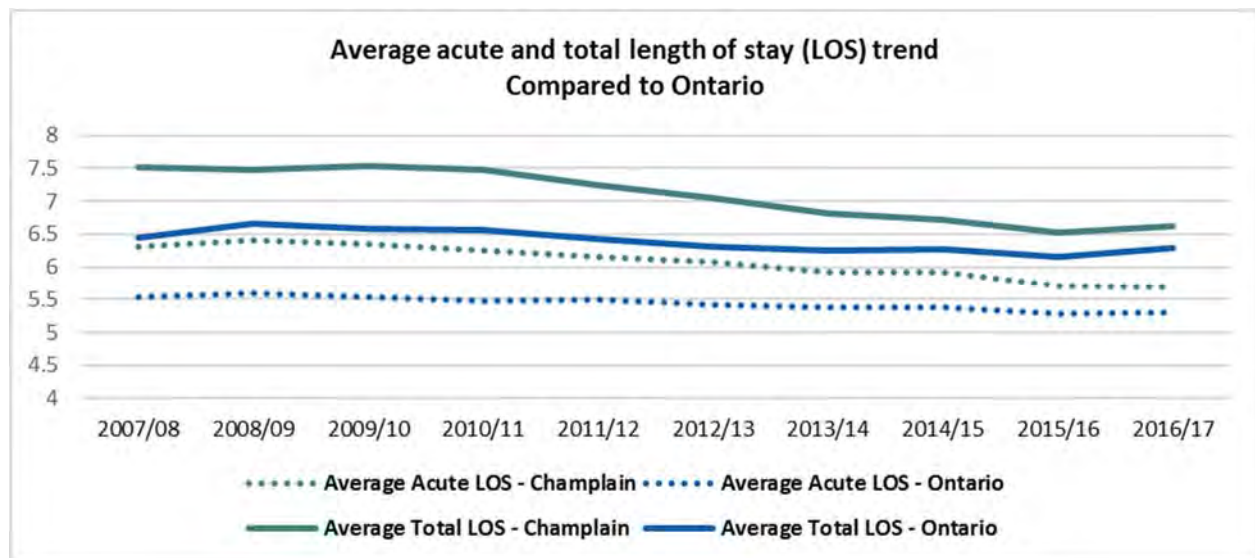
- Total days increased by 1.4% between 2013/14 and 2016/17. Overall Ontario hospitals had an increase of 4.2% of total days during this period.
- Mean total length of stay for this LHIN was 6.6 days. Higher than the mean total length of stay for Ontario, which was 6.3 days.

### HBAM Group (HIG) Weight

- Mean HIG weight for Champlain LHIN hospitals in 2016/17 of 1.59 was higher than the provincial value of 1.55.

### Acute care hospital utilization, Champlain LHIN, 2016/17

Measure	Champlain LHIN	Ontario hospitals	Comments	LHIN % change 2013/14 - 2016/17	Range within LHINs
Acute separations	102,708	1,041,308		4.4%	26,295 - 159,315
Total days	680,251	6,542,800		1.4%	193,259 - 1,050,391
Mean total LOS	6.6	6.3			5.0 - 7.3
Acute days	583,676	5,518,912		0.1%	142,875 - 917,167
Mean acute LOS	5.7	5.3	2 <sup>nd</sup> highest		4.5 - 5.8
Mean HIG weight	1.59	1.55			1.23 - 1.94
% Inflow acute separations	10.0%				1.4% - 55.0%



### Acute Care Inflow/Outflow

#### Inflow

- 10.0% of hospital separations from Champlain LHIN hospitals were by non- Champlain LHIN residents

#### Outflow

- 2.3% of separations for Champlain LHIN residents were from hospitals outside Champlain LHIN
- This is the **lowest** proportion of outflow among all LHINs
  - By sub-region, **Central Ottawa** had the **lowest** proportion of outflow to other LHINs (1.4%), followed by **Eastern Ottawa** (1.5%), **Western Ottawa** (1.6%), and **Eastern Champlain** (2.3%), which ranked 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> lowest, respectively.

#### Inflow - Outflow, Champlain LHIN, 2016/17

Measure	Champlain LHIN	Ontario Hospitals	Comments	Range across CH sub-regions <sup>†</sup>
Acute separations, LHIN of hospital	102,710	1,041,322		13,025 – 29,711
Acute separations, LHIN of patient	94,664	1,041,322		13,222 – 30,139
% inflow	10.0%			NA
% outflow	2.3%		Lowest	1.4% - 5.3%

<sup>†</sup>Excludes unassigned sub-region

## Post-Acute Care

### Inpatient Rehabilitation Utilization

#### Rehabilitation Admissions

- The number of total rehabilitation admissions at the LHIN hospitals, including both general admissions and special admissions, was 3,746 in FY 16/17, an increase of 3.3% from FY 13/14.
  - The number of general rehabilitation admissions was 3,272 in FY 16/17, an increase of 1.9% from FY 13/14.
  - The number of special rehabilitation admissions was 474 in FY 16/17, an increase of 14.8% from FY 13/14.
- The number of total rehabilitation admissions of the LHIN residents, was 3,618 in FY 16/17, an increase of 3.8% from FY 13/14.

#### Active Cases and Discharges

- In FY 16/17, the number of active cases was 4,573 while the number of discharges was 3,747.

#### Inpatient Days

- The number of total inpatient days was 85,879 in FY 16/17.
- The mean length of stay at the LHIN hospitals was 22.9 days.
- By sub-region of patient residence:
  - **Central Ottawa** residents had the longest length of stay at 24.5 days.
  - **Eastern Ottawa** residents had the shortest length of stay at 20.3 days.

#### Admission Rate

- The number of admissions per 100,000 adults (age 18+) was 335.1 in FY 16/17, no change from FY 13/14.
  - Age group 18-44 years had the lowest admission rate, 25.6 per 100,000 population.
  - Age group 80+ years had the highest admission rate, 3,105.2 per 100,000 population.
- By sub-region of patient residence:
  - **Western Champlain** residents had the highest admission rate at 374.3.
  - **Eastern Ottawa** residents had the lowest admission rate at 296.0.

#### Active Case Rate

- The number of active cases per 1,000 population age 18+ was 397.6.

#### Discharge Rate

- The number of discharges per 1,000 population age 18+ was 335.3.

#### Leading Rehabilitation Group

- The 5 leading rehabilitation groups that contributed to the total admissions in FY 16/17 were:
  - Other disabilities accounted for 1,247 admissions or 34.5% of the total admissions.
  - Stroke accounted for 493 admissions or 13.6% of the total admissions.
  - Fracture of lower extremity accounted for 482 admissions or 13.3 % of the total admissions.
  - Non-traumatic brain injury accounted for 243 admissions or 6.7% of the total admissions.
  - Replacement of lower extremity accounted for 198 admissions or 5.5% of the total admissions.

#### Outflow

- Hospitals outside the LHIN accounted for 0.7% of the total rehabilitation admissions of the LHIN residents

- By sub-region of patient residence:
  - **Western Champlain** residents had the highest rate of admission to hospitals outside the LHIN at 1.9%.
  - **Central Ottawa** residents had the lowest rate of admission to hospitals outside the LHIN at 0.2%.

#### Inflow

- 4.1% of the rehabilitation admissions at the hospitals in the LHIN were residents from outside Champlain.

Rehab Admissions, Active Cases, Discharges and Days*	LHIN	Ontario	Ranking Among LHINs**	% Change 2013/14-2016/17	Range across sub-region
<b>LHIN of hospital</b>					
General admissions	3,272	28,691		1.9%	
Special admissions	474	4,444		14.8%	
Total admissions	3,746	33,135		3.3%	
% Inflow inpatient rehab admissions	4.1%				
Active Cases	4,573	43,329			
Discharges	3,747	33,133			
Total Days (discharged cases only)	85,879	839,228			
Mean Length of Stay (discharged cases only)	22.9	25.3	2 <sup>nd</sup> lowest		
<b>LHIN of patient</b>					
Total population age 18+	1,079,810	11,287,810		3.6%	
Total admissions	3,618	33,016		3.8%	473-1,358
Admissions/100,000 population age 18+	335.1	292.5	4 <sup>th</sup> highest	0.0%	296.0-374.3
Admissions/100,000 population age 18-44 years	25.6	30.4	3 <sup>rd</sup> lowest		20.3-41.3
Admissions/100,000 population age 45-64 years	151.2	150.9			101.8-228.5
Admissions/100,000 population age 65-79 years	757.1	689.3			612.4-826.9
Admissions/100,000 population age 80+ years	3,105.2	2,311.8	3 <sup>rd</sup> highest		1,937.6-5,241.2
% Outflow inpatient rehabilitation admissions	0.7%				0.2%-1.9%
Active cases per 1,000 population age 18+	397.6	382.3			332.9-435.3
Discharges per 1,000 population age 18+	335.3	292.5	4 <sup>th</sup> highest		294.0-372.7
Mean Length of Stay (discharged cases only)	22.9	25.3	Lowest		20.3-24.5

	Central Ottawa	Western Ottawa	Eastern Champlain	Western Champlain	Eastern Ottawa
Measure					
Rehab Admissions	1,358	788	499	473	500
Rehab Admission Rate per 100,000 Population	349.2	344.8	298.8	374.3	296.0
Rehab Active Cases	1,693	925	556	541	578
Rehab Active Case Rate per 100,000 Population	435.3	404.7	332.9	428.1	342.1
Rehab Discharges	1,365	795	491	471	499
Rehab Discharge Rate per 100,000 Population	351.0	347.8	294.0	372.7	295.4
Total Inpatient Days (discharged cases only)	33,506	17,531	11,273	10,543	10,132
Mean LOS (discharged cases only)	24.5	22.1	23.0	22.4	20.3
<b>Age specific admission rates per 100,000 population</b>					
18-44 years	20.3	25.7	27.2	41.3	27.3
45-64 years	160.1	101.8	160.6	228.5	131.6
65-79 years	806.2	756.6	612.4	761.2	826.9
80+ years	2,971.6	5,241.2	1,937.6	2,098.7	3,941.6

Rehab Admissions, by Leading Rehabilitation Groups*	LHIN	% of Total Rehab Admission
LHIN of Patient		
18-Other disabilities	1,247	34.5%
01-Stroke	493	13.6%
10-Fracture of lower extremity	482	13.3%
03-Non-traumatic brain injury	243	6.7%
11-Replacement of lower extremity	198	5.5%
12-Other orthopaedic		
13-Cardiac		
06-Non-traumatic spinal cord injury		
07-Amputation		
02-Traumatic brain injury		
16-Major multiple trauma		

\* FY 16/17 data unless noted otherwise.

\*\* Top or bottom 4 ranking in the province, compared to other LHINs.

## Complex Continuing Care Utilization

### Complex Continuing Care

- In 2016/17, there were 2,778 CCC active cases treated in Champlain LHIN hospitals and residents from outside the LHIN accounted for 6.1% of these active cases. In 2016/17, there were 2,220 admissions and 2,206 discharges from Champlain LHIN hospital CCC units. Champlain LHIN hospitals had a mean LOS of 86.0 days.
- There were increases in the number of active cases (43.5%), admissions (60.1%), and discharges (58.7%) for Champlain LHIN hospital CCC units between 2013/14 and 2016/17, while there was a 6.2% decrease in total days.
- During the period, the mean length of stay in CCC beds decreased from 145.5 days to 86.0 days.
- In 2016/17, there were 2,625 CCC active cases for Champlain LHIN residents, and 0.6% of these cases were treated in hospitals outside the LHIN.
  - The active case rate for Champlain LHIN residents was lower than the provincial mean.

### Utilization of Complex Continuing Care, Champlain LHIN and Ontario, 2016/17

Measure	Champlain LHIN		Ontario	
	LHIN	% Change	Provincial	% Change
	Values	2013/14-2016/17	Value	2013/14-2016/17
<b>LHIN of Hospital</b>				
Active Cases	2,778	43.5%	29,466	-0.1%
% Inflow	6.1%			
Admissions	2,220	60.1%	24,108	0.5%
Discharges	2,206	58.7%	23,995	-0.2%
Total Days	189,615	-6.2%	1,855,227	-2.0%
Mean LOS	86.0		77.3	
<b>LHIN of Patient</b>				
Active Cases	2,625	44.6%	29,366	0.3%
Active cases/100,000 population	196.6	40.1%	210.0	-2.9%
% Outflow	0.6%			
Admission	2,119	63.4%	24,022	0.8%
Admissions/100,000 population	158.7		171.8	
Discharges	2,085	60.1%	23,908	0.1%
Discharges/100,000 population	156.2		171.0	
Total Days	172,049	-10.4%	1,850,599	-1.1%
Mean LOS	82.5		77.4	



## Alternate Level of Care

### LHIN overview<sup>5</sup>

Champlain LHIN						
Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Rank
Acute ALC Days (closed cases)	87,669	81,515	84,059	96,572	NV	9
% ALC Days (Acute Inpatient closed cases)	13.1%	12.1%	12.7%	14.2%	NV	5
Volume of Closed Cases	4,621	4,961	5,149	5,566	5,621	10
Volume of Closed Cases - Home with CCAC Services	895	1,013	1,038	1,202	1,050	
Volume of Closed Cases – Rehabilitation	864	915	882	853	880	
Volume of Closed Cases - Supervised or Assisted Living	851	824	887	916	917	
90 <sup>th</sup> Percentile Wait of Closed Cases (Days)	58	51	48	49	52	7
90 <sup>th</sup> Percentile Wait of Closed Cases - Home with CCAC Services	34	31	31	26	26	
90 <sup>th</sup> Percentile Wait of Closed Cases – Rehabilitation	19	20	18	21	19	
90 <sup>th</sup> Percentile Wait of Closed Cases - Supervised or Assisted Living	56	47	43	55	50	
Volume of Open Cases on the last day of the year	377	379	375	416	432	11
Volume of Open Cases - Home with CCAC Services	43	44	37	44	62	
Volume of Open Cases - Long Term Care	165	146	171	199	179	
Volume of Open Cases - Supervised or Assisted Living	72	80	59	52	77	
90 <sup>th</sup> Percentile Wait of Open Cases	483	335	350	322	423	10
90 <sup>th</sup> Percentile Wait of Open Cases - Home with CCAC Services	54	180	41	50	50	
90 <sup>th</sup> Percentile Wait of Open Cases - Long Term Care	651	620	461	451	549	
90 <sup>th</sup> Percentile Wait of Open Cases - Supervised or Assisted Living	483	370	680	640	579	
Throughput Ratio (discharged case/newly added cases)	1.01	1.00	1.00	0.99	0.98	5
% of Cases Designated ALC Within 1 Day	7.2%	6.1%	5.7%	6.1%	6.3%	8
% of Cases Designated ALC Within 2 Days	10.8%	9.6%	9.7%	10.5%	10.9%	8
% of Cases Designated ALC Within 3 Days	14.6%	14.1%	14.0%	15.6%	16.2%	7
ALC Rate - All Inpatient Services	13.2%	12.4%	12.6%	13.8%	14.4%	6
ALC Rate - Acute Inpatient Services	11.7%	11.8%	12.7%	13.7%	14.6%	5
ALC Rate - Post-Acute Inpatient Services	15.7%	13.6%	12.5%	13.9%	14.1%	8
ALC Rate - CCC Inpatient Services	31.1%	26.2%	21.3%	24.6%	24.2%	8
ALC Rate - Rehab Inpatient Services	2.4%	1.8%	3.3%	6.2%	4.0%	3
ALC Rate - Mental Health Inpatient Services	7.1%	7.1%	8.2%	7.2%	8.8%	8

<sup>5</sup> Two hospital facilities in the Champlain LHIN do not participate in WTIS reporting.

## Closed ALC Cases

### Acute ALC Days

- Acute ALC Days increased by 8,903 from FY 13/14 to FY 16/17.

### % ALC Days (Acute Inpatient)

- % ALC Days increased from 13.1% in FY 13/14 to 14.2% in FY 16/17.

### Volume of Closed Cases

- The volume of closed cases for all inpatient services increased by 22% from 4,621 in FY 13/14 to 5,621 in FY 17/18.
  - Home with CCAC Services – number of closed cases increased by 17% from 895 in FY 13/14 to 1,050 in FY 17/18.
  - Rehabilitation – number of closed cases increased by 2% from 864 in FY 13/14 to 880 in FY 17/18.
  - Supervised or Assisted Living – number of closed cases increased by 8% from 851 in FY 13/14 to 917 in FY 17/18.

### 90th Percentile Wait of Closed Cases

- The wait time for closed cases (all inpatient services and all discharge destinations) decreased by 10% from 58 days in FY 13/14 to 52 days in FY 17/18. 8<sup>th</sup> in Champlain at the end of FY 17/18.
  - Home with CCAC Services – wait time decreased by 24% from 34 days in FY 13/14 to 26 days in FY 17/18.
  - Rehabilitation – wait time has remained steady at 19 days from FY 13/14 to FY 17/18.
  - Supervised or Assisted Living – wait time decreased by 11% from 56 days in FY 13/14 to 50 days in FY 17/18.

### Wait Time by Sub-Region of Patient Residence

- **Eastern Champlain** residents had the longest wait in the LHIN at 57 days; **Western Ottawa** had the shortest at 43 days.

## Open ALC Cases

### Volume of Open Cases

- The number of ALC waitlist entries open across all inpatient bed types increased by 15% from 377 at the end of FY 13/14 to 432 at the end of FY 17/18.
  - Home with CCAC Services - number of open cases increased by 44% from 43 at the end of FY 13/14 to 62 at the end of FY 17/18.
  - Long-term Care – number of open cases increased by 8% from 165 at the end of FY 13/14 to 179 at the end of FY 17/18.
  - Supervised or Assisted Living - number of open cases increased by 7% from 72 at the end of FY 13/14 to 77 at the end of FY 17/18.

### 90th Percentile Wait of Open Cases

- The wait time for open cases (all inpatients services and all discharge destinations) decreased by 12% from 483 days at the end of FY 13/14 to 423 days at the end of FY 17/18. Patients awaiting discharge from Champlain LHIN hospitals had waited 371 days longer than patients who were discharged in 17/18, and had the 5<sup>th</sup> longest wait across the LHINs at the end of FY 17/18.
  - Home with CCAC Services – wait time decreased by 7% from 54 days at the end of FY 13/14 to 50 days at the end of FY 17/18.
  - Long-term Care – wait time decreased by 16% from 651 days at the end of FY 13/14 to 549 days at the end of FY 17/18.
  - Supervised or Assisted Living - wait time increased by 20% from 483 days at the end of FY 13/14 to 579 days at the end of FY 17/18.

### Wait Time by Sub-Region of Patient Residence

- The wait time for open cases (all inpatients services and all discharge destinations) decreased by 12% from 483 days at the end of FY 13/14 to 423 days at the end of FY 17/18. Patients awaiting discharge from Champlain LHIN hospitals had waited 371 days longer than patients who were discharged in 17/18, and had the 5<sup>th</sup> longest wait across the LHINs at the end of FY 17/18.
  - Home with CCAC Services – wait time decreased by 7% from 54 days at the end of FY 13/14 to 50 days at the end of FY 17/18.

### ALC Wait Time (Days) by Sub-Region of Patient Residence

Champlain LHIN					
Closed & Open Cases - All Discharge Destinations by Sub-Region	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
<i>90<sup>th</sup> Percentile Wait of Closed Cases</i>					
1101 CENTRAL OTTAWA	63	58	45	49	52
1102 WESTERN OTTAWA	47	42	42	43	43
1103 EASTERN CHAMPLAIN	37	35	48	41	57
1104 WESTERN CHAMPLAIN	95	69	62	55	55
1105 EASTERN OTTAWA	59	48	39	44	56
<i>90<sup>th</sup> Percentile Wait of Open Cases</i>					
1101 CENTRAL OTTAWA	607	498	491	262	334
1102 WESTERN OTTAWA	368	174	505	322	461
1103 EASTERN CHAMPLAIN	244	220	269	214	150
1104 WESTERN CHAMPLAIN	285	75	153	205	145

1105 EASTERN OTTAWA	248	426	534	317	506
---------------------	-----	-----	-----	-----	-----

## Hospital Processes and Capacity

### ALC Throughput Ratio

- In the Champlain LHIN, the throughput ratio decreased from 1.01 in FY 13/14 to 0.98 in FY 17/18.

### Percentage of Patients Designated ALC within 1, 2 & 3 Days of Admission

- The percentage of patients that have been designated as requiring an alternate level of care within one day of admission to hospital decreased over the last five years in the Champlain LHIN from FY 13/14 to FY 17/18. However, both two and three day indicators have risen since 13/14 and all indicators are ranked 7<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>

### ALC Rate (All Inpatient Services)

- The annual ALC rate for all inpatient beds increased from 13.2% in FY 13/14 to 14.4% in FY 17/18.
- In FY 17/18, the ALC rate in Champlain hospitals was below the provincial rate of 15.4%.

### Acute I/P Services

- Champlain LHIN increased over the past 5 fiscal years (11.7% FY 13/14; 14.6% FY 17/18) and is now 1.6% below the provincial value.

### Post-Acute I/P Services

- Champlain LHIN decreased over the past 5 fiscal years (15.7% FY 13/14; 14.1% FY 17/18).
  - CCC Inpatient Services – Rate decreased from 31.1% in FY 13/14 to 24.2% in FY 17/18.
  - Rehab Inpatient Services - 12<sup>th</sup> across LHINs for FY 17/18. Rate increased from 2.4% in FY 13/14 to 4.0% in FY 17/18.
  - Mental Health Inpatient Services – Rate increased from 7.1% in FY 13/14 to 8.8% in FY 17/18.

## LHIN/Facility/Site – Annual ALC Rate

Province/LHIN/Facility/Site			Annual ALC Rate					% Change FY 13/14 to FY 17/18
			FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	
<b>Provincial</b>			<b>13.8%</b>	<b>13.7%</b>	<b>13.9%</b>	<b>14.8%</b>	<b>15.4%</b>	
<b>LHIN</b>	<b>11</b>	<b>Champlain</b>	13.2%	12.4%	12.6%	13.8%	14.4%	1.2%
<b>Facility</b>	597	ALMONTE GENERAL HOSPITAL	23.8%	6.3%	3.0%	1.1%	8.4%	(-15.4%)
<b>Facility</b>	599	ARNPRIOR REGIONAL HEALTH	11.2%	5.4%	5.5%	6.5%	9.1%	(-2.1%)
<b>Facility</b>	626	CARLETON PLACE AND DISTRICT MEM HOSPITAL	47.6%	45.4%	37.7%	28.6%	26.0%	(-21.6%)
<b>Facility</b>	646	DEEP RIVER AND DISTRICT HOSPITAL	NR	NR	30.3%	35.3%	19.6%	(-10.7%)
<b>Facility</b>	651	ROYAL OTTAWA HEALTH CARE GROUP	6.1%	5.6%	5.7%	5.3%	5.9%	(-0.2%)
<b>Site</b>	4544	ROYAL OTTAWA HEALTH CARE GROUP - BROCKVILLE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Site</b>	4599	ROYAL OTTAWA HEALTH CARE GROUP - ROYAL OTTAWA	8.0%	7.2%	7.2%	6.9%	7.7%	(-0.4%)
<b>Facility</b>	732	KEMPTVILLE DISTRICT HOSPITAL	26.7%	35.7%	40.6%	16.9%	27.1%	0.3%
<b>Facility</b>	751	CHILDRENS HOSPITAL OF EASTERN ONTARIO	0.7%	0.7%	1.3%	0.6%	0.7%	0.0%
<b>Facility</b>	753	HOPITAL MONTFORT	9.1%	6.4%	9.7%	14.0%	16.1%	7.0%
<b>Facility</b>	763	PEMBROKE REGIONAL HOSPITAL INC.	13.6%	13.5%	14.4%	19.2%	18.4%	4.8%
<b>Facility</b>	768	ST FRANCIS MEMORIAL HOSPITAL	NR	NR	1.7%	6.9%	13.3%	11.5%
<b>Facility</b>	777	QUEENSWAY-CARLETON HOSPITAL	13.1%	13.6%	13.9%	13.8%	15.8%	2.7%
<b>Facility</b>	788	RENFREW VICTORIA HOSPITAL	60.7%	36.6%	45.9%	31.8%	15.4%	(-45.3%)
<b>Facility</b>	800	HAWKESBURY AND DISTRICT GENERAL HOSPITAL	5.4%	5.5%	12.2%	12.2%	16.8%	11.5%
<b>Facility</b>	882	WINCHESTER DISTRICT MEMORIAL HOSPITAL	2.8%	4.2%	3.2%	5.8%	4.1%	1.3%
<b>Facility</b>	932	BRUYERE CONTINUING CARE INC	27.7%	24.3%	19.3%	22.1%	21.1%	(-6.6%)
<b>Site</b>	3781	BRUYERE CONTINUING CARE INC - SAINT VINCENT	32.3%	28.6%	22.6%	25.9%	25.4%	(-6.9%)
<b>Site</b>	3782	BRUYERE CONTINUING CARE INC - ELIZABETH	4.0%	2.0%	2.6%	4.2%	1.7%	(-2.4%)
<b>Facility</b>	958	OTTAWA HOSPITAL (THE)	11.5%	12.4%	13.3%	14.6%	15.6%	4.1%
<b>Site</b>	4079	OTTAWA HOSPITAL-CIVIC SITE	14.5%	15.7%	16.2%	17.0%	19.0%	4.5%
<b>Site</b>	4085	OTTAWA HOSPITAL-GENERAL SITE	9.7%	10.6%	11.8%	13.1%	14.0%	4.3%
<b>Site</b>	4429	OTTAWA HOSPITAL (THE) - REHAB CENTRE	4.5%	3.4%	4.4%	9.5%	5.5%	1.0%
<b>Facility</b>	961	UNIVERSITY OF OTTAWA HEART INSTITUTE	1.0%	1.0%	0.7%	0.6%	1.1%	0.1%
<b>Facility</b>	967	CORNWALL COMMUNITY HOSP-GENERAL SITE	12.4%	15.2%	16.0%	16.7%	15.2%	2.8%
<b>Site</b>	4452	CORNWALL COMMUNITY HOSPITAL	13.4%	15.5%	16.0%	16.7%	15.2%	1.8%
<b>Site</b>	4471	CORNWALL COMMUNITY HOSP-GENERAL SITE	4.3%	7.3%	N/A	N/A	N/A	

*\*If all 5 years are not available, then available years used to calculate % change*

- In FY 17/18, Kemptville District Hospital had the highest ALC Rate across the Champlain LHIN at the facility level, with Bruyere Continuing Care – Saint Vincent having the highest site level rate.
- St. Francis Memorial Hospital & Hawkesbury and District General Hospital had the greatest increases in ALC Rate since FY 13/14 (+11.5%).
- Renfrew Victoria Hospital had the greatest decrease in ALC Rate since FY 13/14 (-45.3%).

## Long-Term Care

### Long-Term Care Bed Supply

- 60 LTC homes are licensed and approved to operate in Champlain LHIN.
- As of February 2018, there were a total of 7,591 Long-Term Care beds in operation in Champlain LHIN.
  - With the exception of 155 beds designated as Short-stay, Respite or Convalescent care beds, almost all of the LTC beds are designated Long-Stay Beds or Interim beds.

### Long-Term Care Waitlist & Placements

- Of the 2,139 patients placed in Champlain LHIN Long-Term Care Homes in FY 2017/18, approximately 69% were from the community while only 24% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province)
- Of the 2,110 residents of Champlain LHIN placed in Ontario Long-Term Care Homes in FY 2017/18, approximately 70% were from the community while only 24% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province)
- The median time to placement in a Champlain LHIN long-term care home, as of March 2018, was 186 days.
  - Half of community patients waited less than 244 days for a placement in a Champlain LHIN LTC home while half of hospital patients waited less than 98 days for placement in a Champlain LHIN LTC Home.
- The median time to placement for a Champlain LHIN resident to be placed in a long-term care home, as of March 2018, was 191 days.
  - Half of community patients from Champlain LHIN waited less than 245 days for a placement in an Ontario LTC home while half of hospital patients waited less than 100 days for placement.
- As of March 2018, there were 3,390 patients on the waitlist waiting for placement in a Long-Term Care home in Champlain LHIN (not including patients awaiting transfer from one LTC home to another).
- As of March 2018, there were 3,390 residents of Champlain LHIN on the waitlist waiting for placement in an Ontario Long-Term Care home (not including patients awaiting transfer from one LTC home to another).

### Long-Stay Demand

- As of March 2018, there were 7,264 long-stay residents occupying LTC Homes within Champlain LHIN.
- When adjusted for the size of the older population, Champlain LHIN has approximately 81 Long-Stay beds per 1,000 people aged 75+.
- The gap between the demand and supply of Long-Term Care Homes in Champlain LHIN reflects a shortage of approximately 3,218 Long-Stay beds.
  - The largest gap was in the [Central Ottawa](#) sub-region (1,245 beds) and the smallest gap in [Eastern Ottawa](#) (249 beds).

### Selected Characteristics of Long-Term Care Home Residents

- In Champlain LHIN, 82% of Residents were over the age of 75 with 55% being over the age of 85
- In 2016/17, the mean age of residents of LTC Homes in Champlain LHIN was 84
- The mean length of stay for residents of LTC Homes in Champlain LHIN was 944 days (about 2.6 years) with half of residents remaining in LTC homes for less than 600 days.
- Nearly 84% of residents need extensive help with daily activities such as getting out of bed, eating, or toileting; 28% are highly or entirely dependent on staff
- 87% have some form of cognitive impairment; 33% are severely impaired
- 51% exhibit some level of aggressive behaviour related to their cognitive impairment or mental health condition with 9% exhibiting very severe aggressive behavior.

- 72% of active LTC Residents in Champlain LHIN LTC Homes have been identified as having some form of dementia.

### Long-term care home supply, waitlists and placements, and resident characteristics, by LHIN sub-region

	Champlain		1101		1102		1103		1104		1105	
			Central Ottawa		Western Ottawa		Eastern Champlain		Western Champlain		Eastern Ottawa	
Long-term care bed supply in the sub-region (February 2018)	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-term care homes	60		14		7		18		14		7	
Long-stay beds	7,436	80.7	2,586	70.1	1,258	84.4	1,574	91.8	1,106	81.1	912	95.0
Short-stay, respite & convalescent care beds	155	1.7	54	1.5	18	1.2	3	0.2	54	4.0	26	2.7
Total beds in operation	7,591	82.3	2,640	71.5	1,276	85.7	1,577	92.0	1,160	85.0	938	97.7

*\*The denominator for the rate calculation refers to the number of sub-region residents age 75+; however the LTC homes/beds may serve individuals from other sub-regions. Therefore, rates should be interpreted with caution.*

	Champlain		1101		1102		1103		1104		1105	
			Central Ottawa		Western Ottawa		Eastern Champlain		Western Champlain		Eastern Ottawa	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>By sub-region of long-term care <u>home</u> (patients awaiting placement in a home within the sub-region)</b>												
Long-stay waitlist without transfer patients*	3,390	36.8	1307	35.4	637	42.8	416	24.3	743	54.5	287	29.9
<b>Placements**</b>												
From community	1,483	69.3%	462	68.0%	298	77.6%	321	62.7%	245	79.3%	157	61.6%
From hospital	519	24.3%	174	25.6%	68	17.7%	162	31.6%	35	11.3%	80	31.4%
Total	2,139		679		384		512		309		255	
<b>Median time to placement (days)</b>												
From community	244		257.5		360.5		142.0		268.0		296.0	



	Champlain		1101		1102		1103		1104		1105	
			Central Ottawa		Western Ottawa		Eastern Champlain		Western Champlain		Eastern Ottawa	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
From hospital	98		113.0		125.5		72.0		201.0		76.0	
Total	186		201.0		286.5		119.0		249.0		184.0	
<b>By sub-region of patient (patients who reside within the sub-region and are awaiting placement in any home)</b>												
Long-stay waitlist without transfer patients*	3,390	36.8	1149	31.1	604	40.5	496	28.9	736	53.9	405	42.2
Placements**												
From community	1,470	69.7%	442	67.2%	286	77.9%	337	64.7%	230	77.7%	175	65.3%
From hospital	515	24.4%	168	25.5%	70	19.1%	161	30.9%	37	12.5%	79	29.5%
Total	2,110		658		367		521		296		268	
Median time to placement (days)												
From community	245		297.0		315.0		152.0		264.5		283.0	
From hospital	100		100.0		134.5		71.0		309.0		85.0	
Total	191		208.0		252.0		124.0		261.0		225.0	

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents

Placements from other locations (correctional facilities, homeless, out-of-province) are not shown but are included in the total placement values.

	Champlain		1101		1102		1103		1104		1105	
			Central Ottawa		Western Ottawa		Eastern Champlain		Western Champlain		Eastern Ottawa	
Long-stay demand (February / March 2018) for LTC homes in the sub-region	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-stay residents	7,264	78.8	2,524	68.4	1,228	82.4	1,546	90.2	1,092	80.0	874	91.0
Long-stay waitlist without transfer patients	3,390	36.8	1,307	35.4	637	42.8	416	24.3	743	54.5	287	29.9
Total demand	10,654	115.6	3,831	103.8	1,865	125.2	1,962	114.4	1,835	134.5	1,161	120.9
Total long-stay supply	7,436	81	2,586	70.1	1,258	84.4	1,574	91.8	1,106	81.1	912	95.0
Difference between supply and demand	3,218	35	1,245	33.7	607	40.7	388	22.6	729	53.4	249	25.9

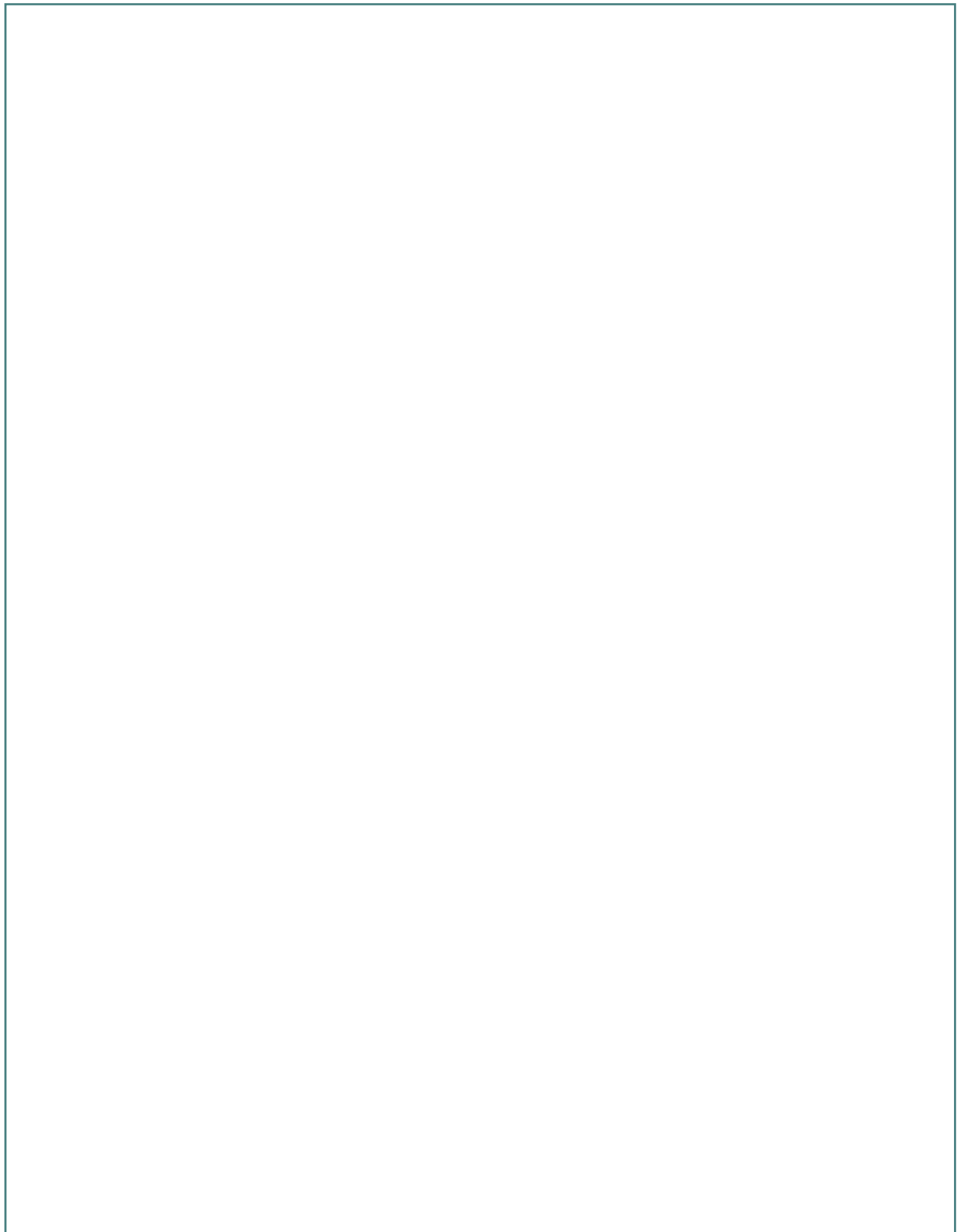
	Champlain		1101		1102		1103		1104		1105	
			Central Ottawa		Western Ottawa		Eastern Champlain		Western Champlain		Eastern Ottawa	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Demography, volume and length of stay (LOS)</b>												
Active LTC Residents*	6,518	70.7	2,321	62.9	1,102	74.0	1,321	77.1	1,001	73.4	773	80.5
Number of admissions*	2,640	28.6	896	24.3	439	29.5	567	33.1	376	27.6	362	37.7
<b>By age group**</b>												
Residents age <65	419	6.4%	143	6.2%	69	6.3%	80	6.1%	63	6.3%	64	8.3%
Residents age 65-74	741	11.4%	257	11.1%	132	12.0%	163	12.3%	89	8.9%	100	12.9%
Residents age 75-84	1,748	26.8%	594	25.6%	315	28.6%	360	27.3%	251	25.1%	228	29.5%
Residents age 85+	3,610	55.4%	1,327	57.2%	586	53.2%	718	54.4%	598	59.7%	381	49.3%
Mean age of residents	84		84		83		83		84		82	

	Champlain		1101		1102		1103		1104		1105	
			Central Ottawa		Western Ottawa		Eastern Champlain		Western Champlain		Eastern Ottawa	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Mean age of residents at admission	84		85		83		83		84		82	
<b>Length of stay</b>												
Mean LOS (days)	944		940		953		939		1,039		842	
Median LOS (days)	600		646		625		587		616		500	
<b>Residents by level of ADL assistance required**</b>												
None or limited assistance required	1,058	16.2%	399	17.2%	149	13.5%	204	15.4%	198	19.8%	108	14.0%
Extensive assistance required	3,618	55.5%	1,311	56.5%	620	56.3%	666	50.4%	560	55.9%	461	59.6%
Dependent	1,842	28.3%	611	26.3%	333	30.2%	451	34.1%	243	24.3%	204	26.4%
<b>Residents by level of aggressive behaviour**</b>												
No signs of aggressive behaviour	3,200	49.1%	1,099	47.4%	527	47.8%	709	53.7%	508	50.7%	357	46.2%
Some signs of aggressive behaviour	1,641	25.2%	560	24.1%	233	21.1%	346	26.2%	298	29.8%	204	26.4%
Moderate to severe aggressive behaviour	1,099	16.9%	445	19.2%	194	17.6%	182	13.8%	143	14.3%	135	17.5%
Very severe aggressive behaviour	577	8.9%	217	9.3%	148	13.4%	84	6.4%	51	5.1%	77	10.0%
<b>Cognitive impairment categories **</b>												
Relatively intact	858	13.2%	343	14.8%	120	10.9%	208	15.7%	96	9.6%	91	11.8%
Mild impairment	3,522	54.0%	1,233	53.1%	594	53.9%	731	55.3%	563	56.2%	401	51.9%

	Champlain		1101		1102		1103		1104		1105	
			Central Ottawa		Western Ottawa		Eastern Champlain		Western Champlain		Eastern Ottawa	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Severe impairment	2,138	32.8%	745	32.1%	388	35.2%	382	28.9%	342	34.2%	281	36.4%
<b>RUG categories **</b>												
1 Extensive Services	172	2.6%	58	2.5%	21	1.9%	25	1.9%	32	3.2%	36	4.7%
2 Special Rehabilitation	225	3.5%	51	2.2%	61	5.5%	50	3.8%	57	5.7%	6	0.8%
3 Special Care	724	11.1%	264	11.4%	104	9.4%	153	11.6%	117	11.7%	86	11.1%
4 Clinically Complex	1,159	17.8%	366	15.8%	173	15.7%	266	20.1%	247	24.7%	107	13.8%
5 Impaired Cognition	1,027	15.8%	389	16.8%	179	16.2%	172	13.0%	171	17.1%	116	15.0%
6 Behavioural Problems	92	1.4%	28	1.2%	18	1.6%	21	1.6%	10	1.0%	15	1.9%
7 Reduced Physical Functions	3,119	47.9%	1,165	50.2%	546	49.5%	634	48.0%	367	36.7%	407	52.7%
<b>Residents with Dementia**</b>	4,695	72.0%	1,662	71.6%	805	73.0%	911	69.0%	776	77.5%	541	70.0%

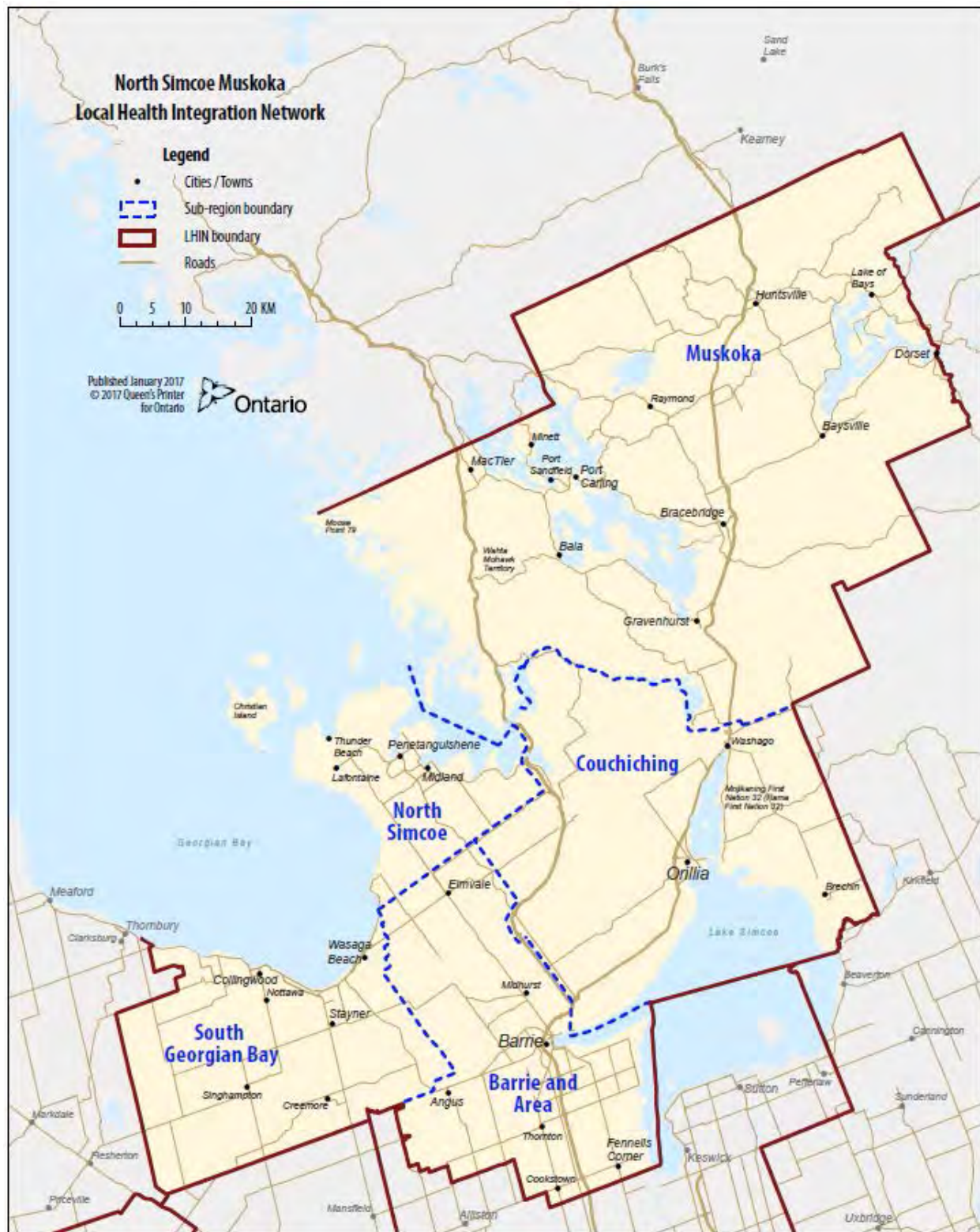
\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents





## 12. North Simcoe Muskoka LHIN



## Contents

<b>12. North Simcoe Muskoka LHIN</b>	<b>1</b>
<b>Highlights</b>	<b>1</b>
North Simcoe Muskoka LHIN.....	1
Residents of North Simcoe Muskoka LHIN Sub-Regions.....	3
<b>Population Characteristics</b>	<b>8</b>
Population Estimates.....	8
2016 Census Profile .....	9
Births and Mortality.....	16
General Health, Risk Factors, and Prevention.....	21
Chronic Conditions .....	23
<b>Human Resources</b>	<b>35</b>
<b>Primary Care</b>	<b>38</b>
Primary Care Enrolment .....	38
Selected Measures from the Health Care Experience Survey .....	38
<b>Community Care</b>	<b>40</b>
<b>Mental Health</b>	<b>41</b>
Wait Time for Community Services.....	41
Mental Health and Substance Abuse Emergency Department Visits.....	41
Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility .....	42
<b>Surgery &amp; Diagnostic Imaging</b>	<b>44</b>
Day Surgery and Cardiac Catheterization Utilization .....	44
Surgical & Diagnostic Imaging Wait Times .....	45
<b>Oncology and Dialysis</b>	<b>54</b>
<b>Home Care</b>	<b>58</b>
<b>Palliative Care</b>	<b>61</b>
<b>Emergency Department</b>	<b>64</b>
Emergency Department Utilization.....	64
Emergency Department Performance .....	68
<b>Acute Care</b>	<b>70</b>
Acute Care Utilization by Residents of the North Simcoe Muskoka LHIN .....	70
Acute Care Utilization for North Simcoe Muskoka LHIN Facilities.....	71
Acute Care Inflow/Outflow.....	73
<b>Post-Acute Care</b>	<b>74</b>
Inpatient Rehabilitation Utilization .....	74
Complex Continuing Care Utilization .....	77
<b>Alternate Level of Care</b>	<b>78</b>
Closed ALC Cases .....	79
Open ALC Cases .....	80
Hospital Processes and Capacity .....	81
<b>Long-Term Care</b>	<b>83</b>



## Highlights

Comprehensive information about population demographics, health status, health outcomes, chronic conditions, human resources, primary care, health service utilization, and long-term care in the North Simcoe Muskoka LHIN can be found under the content headings of in the remainder of this document, beginning with the socio-demographic profile. This Highlights introduction is intended to provide a guide to areas in which either the North Simcoe Muskoka LHIN or one of its sub-regions is significantly different from the province as a whole. Sub-region comparisons within this section are always to the other 75<sup>1</sup> sub-regions across the province, and LHIN comparisons are always to the other 13 LHINs.

### North Simcoe Muskoka LHIN

#### Population Characteristics

- The North Simcoe Muskoka LHIN had the 2<sup>nd</sup> lowest population in the province.
- The North Simcoe Muskoka LHIN had the **highest** percentage of residents with high school completion only.
- Residents of the North Simcoe Muskoka LHIN received the **highest** rate of palliative home visits in the last 90 days of life (tied with [Waterloo Wellington](#)).
- The North Simcoe Muskoka LHIN had a **significantly lower** percentage of people who died in hospital than the provincial value, and also had the **lowest** rate in the province.
- Residents of the North Simcoe Muskoka LHIN had the 2<sup>nd</sup> lowest rehabilitation admission rate in FY16/17.
- The North Simcoe Muskoka LHIN had the **shortest** rehabilitation length of stay.
- Hospitals in North Simcoe Muskoka had the **greatest** reduction in active CCC cases between 2013/14 and 2016/17.
- Residents of North Simcoe Muskoka had the 2<sup>nd</sup> lowest CCC active case rate in 2016/17.

#### Strengths

- The North Simcoe Muskoka LHIN had the **lowest** primary Caesarean section rate in the province.
- The North Simcoe Muskoka LHIN had the 2<sup>nd</sup> highest rate of self-reported attachment to a regular doctor.
- The North Simcoe Muskoka LHIN had the 2<sup>nd</sup> lowest prevalence rate for cancer.
- North Simcoe Muskoka had the **lowest** rate of potential years of life lost for perinatal conditions.
- North Simcoe Muskoka LHIN had the 2<sup>nd</sup> lowest inpatient rehabilitation admission rate.
- The North Simcoe Muskoka LHIN had the 2<sup>nd</sup> lowest mean length of stay for inpatient rehabilitation in the province.
- Patients awaiting discharge from North Simcoe Muskoka LHIN hospitals had the **shortest** wait by the end of 2017/18.

#### Challenges/Opportunities

- In 2016, the stillbirth rate per 1,000 live births in North Simcoe Muskoka was the 2<sup>nd</sup> highest rate in the province.
- The rate of repeat Caesarean sections in North Simcoe Muskoka was the **highest** in the province.
- The proportion of people reporting heavy drinking in North Simcoe Muskoka was the 2<sup>nd</sup> highest among LHINs, and **significantly higher** than the Ontario proportion.
- The North Simcoe Muskoka LHIN had the **highest** prevalence rate for stroke.

---

<sup>1</sup> Or however many sub-regions have reported data across the province.

- In 2017/18, 90<sup>th</sup> percentile wait time for cataract surgeries was **longest** in the North Simcoe Muskoka LHIN.
- 2<sup>nd</sup> highest percentage of residents with difficulty accessing after-hours care without going to the ED.
- North Simcoe Muskoka residents had the 2<sup>nd</sup> highest rate of emergency department utilization for opioid overdose in 2016/17, as well as the 2<sup>nd</sup> highest that were accidental.
- North Simcoe Muskoka LHIN hospitals had the **highest** mean length of stay for discharges from adult designated mental health beds.
- Hospitals in the North Simcoe Muskoka LHIN had the **lowest** ALC throughput ratio.

## Residents of North Simcoe Muskoka LHIN Sub-Regions

### BARRIE AND AREA SUB-REGION HIGHLIGHTS

#### Population Characteristics

- 5<sup>th</sup> lowest CCC active case rate.
- 8<sup>th</sup> lowest rehabilitation admission rate per 100,000 population in FY16/17.

#### Strengths

- Barrie and Area had the 8<sup>th</sup> lowest inpatient rehabilitation admission rate in the province.
- At the end of 2017/18, residents of Barrie and Area had had the 2<sup>nd</sup> shortest wait to date for discharge from an ALC designation in hospital (open cases).

#### Challenges/Opportunities

- Barrie and Area had the **highest** stillbirth rates in the province.
- **Significantly higher** prevalence rate for asthma than Ontario.
- 7<sup>th</sup> lowest percentage of residents who were able to see their provider the same day or next day when they were sick.
- 6<sup>th</sup> highest percentage of residents who went to a walk in clinic for something that could have been treated by a primary care provider if they were available.

## SOUTH GEORGIAN BAY SUB-REGION HIGHLIGHTS

### Population Characteristics

- According to the census, **South Georgian Bay** had the 7<sup>th</sup> highest increase in population between 2011 and 2016.
- 2<sup>nd</sup> highest percentage of population aged 65+.
- 4<sup>th</sup> highest percentage of population aged 75+.
- 3<sup>rd</sup> highest dependency ratio.
- Among the eight sub-regions with the highest service hour rates for personal support.
- **Highest** rate of palliative home visits in the last 90 days of life in 2016/17.
- 4<sup>th</sup> lowest percentage of patients who receive palliative care who died in hospital in 2016/17 (tied with **Quinte**).
- **Lowest** percentage of residents who died in hospital.
- Among the shortest acute length of stay in acute hospital beds in 2016/17.

### Strengths

- Compared to Ontario, the proportion of people with a regular medical doctor was **significantly higher** in **South Georgian Bay**.
- **Significantly lower** prevalence rate for asthma than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- 2<sup>nd</sup> highest percentage of residents who report attachment to a primary care provider.
- Among the 8 sub-regions with the lowest mean cost per high cost per healthcare user.
- 8<sup>th</sup> lowest percentage of residents who went to the ED for something that could have been treated by a primary care provider.
- Among the lowest 8 Ontario sub-regions for acute length of stay.
- At the end of 2017/18, residents of **South Georgian Bay** had had the 8<sup>th</sup> shortest wait to date for discharge from an ALC designation in hospital (open cases).

### Challenges/Opportunities

- The overweight or obesity rate was **significantly higher** than Ontario.
- Among the 8 sub-regions with the highest hospitalization rates for diabetes.
- Among the 8 sub-regions with the highest percentage of complex patients.

## COUCHICHIING SUB-REGION HIGHLIGHTS

### Population Characteristics

- 8<sup>th</sup> highest percentage of residents who report English as their mother tongue.
- Couchiching and North Simcoe tied for the **lowest** crude birth rates in the province.
- 5<sup>th</sup> lowest fertility rate for 15-49 year olds in the province.
- 6<sup>th</sup> lowest multiple live birth rate in the province.
- 6<sup>th</sup> lowest percentage of patients with two or more acute inpatient admissions in the last 30 days of life.
- 8<sup>th</sup> lowest percentage of residents who died in hospital.
- 4<sup>th</sup> highest rate of palliative home visits in the last 90 days of life in 2016/17.
- 6<sup>th</sup> lowest CCC active case rate.

### Strengths

- 4<sup>th</sup> lowest low birth weight rate (tied with District of Rainy River and Wellington) in the province.
- 4<sup>th</sup> lowest pre-term birth rate in the province.
- 5<sup>th</sup> highest percentage of residents who report attachment to a primary care provider.
- At the end of 2017/18, residents of Couchiching had had the 4<sup>th</sup> shortest wait to date for discharge from an ALC designation in hospital (open cases).

### Challenges/Opportunities

- **Significantly higher** smoking rate than Ontario.
- Compared to Ontario, the proportion of residents consuming fewer than 5 servings of fruits and vegetables per day was **significantly higher** in Couchiching.
- **Significantly higher** prevalence rate for hypertension than Ontario.
- Among the 8 sub-regions with the highest percentage of complex patients (4+ conditions).

## MUSKOKA SUB-REGION HIGHLIGHTS

### Population Characteristics

- 4<sup>th</sup> highest percentage of population aged 65+.
- 3<sup>rd</sup> highest percentage of population aged 75+.
- 4<sup>th</sup> highest percentage of residents who reported English as their mother tongue.
- 4<sup>th</sup> lowest percentage of residents who reported no knowledge of English or French.
- 7<sup>th</sup> lowest percentage of residents who were visible minorities.
- 5<sup>th</sup> lowest crude birth rates in the province.
- **Highest** multiple live birth rate in the province.
- Among the eight lowest sub-regions in nursing visit rates in 2017/18.
- 4<sup>th</sup> lowest percentage of residents who died in hospital.
- 5<sup>th</sup> lowest rehabilitation admission rate per 100,000 population in FY16/17.

### Strengths

- Among the 8 sub-regions with the lowest hospitalization rates for asthma.
- **Muskoka** had the 5<sup>th</sup> lowest inpatient rehabilitation admission rate in the province

### Challenges/Opportunities

- The overweight or obesity rate was **significantly higher** than Ontario.
- **Highest** prevalence rate for asthma of all Ontario sub-regions.
- 6<sup>th</sup> highest percentage of residents who found it difficult to access care after-hours without going to an emergency department.

## NORTH SIMCOE SUB-REGION SUMMARY

### Population Characteristics

- 7<sup>th</sup> lowest percentage of residents who were recent immigrants.
- 6<sup>th</sup> highest percentage of residents reporting Aboriginal identity.
- 4<sup>th</sup> highest percentage of residents with only high school completion.
- 5<sup>th</sup> lowest percentage of residents participating in the labour force.
- **North Simcoe** and **Couchiching** tied for the lowest crude birth rates in the province.
- 8<sup>th</sup> lowest fertility rates for 15-49 year olds in the province.
- **Lowest** percentage of patients receiving palliative care who died in hospital in 2016/17.
- Residents of **North Simcoe** had the 5<sup>th</sup> highest mental health active case rate.
- 3<sup>rd</sup> shortest rehabilitation length of stay.

### Strengths

- 3<sup>rd</sup> lowest mean length of stay for inpatient rehabilitation.
- In 2017/18, residents of **North Simcoe** tied for the 3<sup>rd</sup> shortest wait before being discharged from hospital with an ALC designation (closed cases).

### Challenges/Opportunities

- 3<sup>rd</sup> highest pre-term birth rate in the province.
- The proportion of residents rating their health as *very good or excellent* in the **North Simcoe** sub-region was **significantly lower** than the rate for all Ontarians.
- **Significantly higher** prevalence rate for arthritis than Ontario.
- **North Simcoe** was among the 8 sub-regions with the highest hospitalization rates for cardiovascular disease and for ischemic heart disease.
- Among the 8 sub-regions with the highest mean cost per user.
- 2<sup>nd</sup> lowest percentage of residents who were able to see their provider the same day or next day when they were sick.
- 6<sup>th</sup> highest percentage of residents who went to the ED for something that could have been treated by a primary care provider.
- Among the highest 8 sub-regions with the highest percentage of complex patients (4+ conditions).
- Among the 8 sub-regions with the highest percentage of high cost healthcare users and mean cost per high cost healthcare user.
- 8<sup>th</sup> highest percentage of patients with two or more acute inpatient admissions in the last 30 days of life.

## Population Characteristics

### Population Estimates<sup>2</sup>

- As of 2016, the population of the North Simcoe Muskoka LHIN is estimated to be 486,453, a 7.0% increase from 2011.
  - The populations 65 and over and 75 and over represent 19% and 8% of the total population respectively.
- The population of the North Simcoe Muskoka LHIN is projected to increase by 7.1% by 2021 and by 13.7% by 2026.

### Population Estimates from 2016 Census and Ministry of Finance

	Ontario	North Simcoe Muskoka	Comments†
2011 Census, total population	12,851,821	439,263	
2016 Census, total population	13,448,494	464,184	
Population growth between 2011 and 2016 (based on Census)	4.6%	5.7%	
Estimated population, 2011	13,263,544	454,440	
<b>Estimated population, 2016</b>	<b>13,982,984</b>	<b>486,453</b>	<i>2<sup>nd</sup> lowest</i>
% population age 65+	16.38%	19.06%	
% population age 75+	7.17%	8.20%	
<b>% population change estimated 2011-2016</b>	<b>5.4%</b>	<b>7.0%</b>	
Projected population, 2021	14,980,422	521,099	
Projected population, 2026	15,822,463	553,286	
% changes (based on changes from the 2016 estimates)			
% population change forecasted 2016-2021	7.1%	7.1%	
% population change forecasted 2016-2026	13.2%	13.7%	

Sub-Region Name	Total population	Age 65plus	% 65+	Age 75plus	% 75+
Barrie and Area	224,994	31,318	13.92%	13,737	6.11%
South Georgian Bay	63,231	16,499	26.09%	6,718	10.63%
Couchiching	81,905	17,479	21.34%	7,443	9.09%
Muskoka	62,500	15,246	24.39%	6,790	10.86%
North Simcoe	53,823	12,159	22.59%	5,182	9.63%

<sup>2</sup> Please see note in Ontario chapter on Census versus Ministry of Finance estimates.



## 2016 Census Profile

### Census Demographics

- 16.6% of the population was in the age group 0-14 and 64.7% was in the age group 15-64.
- The dependency ratio in North Simcoe Muskoka at 69.7 was higher than the province (64.5).
- The largest proportion of North Simcoe Muskoka's population (31.3%) lived in large urban communities.
- 27.2% of North Simcoe Muskoka's population lived in medium/small population centre communities.
- The smallest proportion of North Simcoe Muskoka's population (12.2%) lived in rural or small communities adjacent to urban areas communities.
- 29.2% of North Simcoe Muskoka's population lived in rural and small town communities.
- North Simcoe Muskoka's land mass measures 8,449 square kilometres making it the 7<sup>th</sup> largest in the province.
- North Simcoe Muskoka's population density was 54.9 persons per square kilometre making it the 5<sup>th</sup> least densely populated LHIN in the province.

### Households

- In 2016, 85,420 households contained one or more family members aged 65 years and over. 22.1% of those individuals were living alone.
  - By sub-region, **Couchiching** had the highest rate of seniors living alone (22.8%) and **South Georgian Bay** with the lowest (21.4%).
  - **North Simcoe** had the highest rate of one person households (26.5%) and **Barrie and Area** with the lowest (20.8%)
  - **Barrie and Area** had the highest rate of 5 or more person households (10.3%) and **Muskoka** with the lowest (5.6%).
- In 2016, 76,560 families with children were living within the boundaries of the North Simcoe Muskoka LHIN. 29.3% of those families were lone parent.
  - By sub-region, **North Simcoe** had the highest rate of lone-parent families (34.7%) and **Barrie and Area** had the lowest (28.1%)
- The total number of owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio was 179,895. 26.1% of those households spent 30% or more of their income on rent or payments.
  - By sub-region, **Barrie and Area** had the highest rate (26.6%) and **Couchiching** and **Muskoka** had the lowest (25.3%).
- The total number of private households was 182,500. 78.4% of those were owner occupied, 21.5% were rented, and 0.1% were band housing.
  - By sub-region and owner occupation rate, **South Georgian Bay** had the highest rate (82.2%) with **Barrie and Area** being the lowest (76.4%).
- 6.2% of the private households in the North Simcoe Muskoka LHIN were in need of major repair.
  - By sub-region and housing in need of repair rate, **Muskoka** had the highest rate (8.6%) and **Barrie and Area** had the lowest (4.9%).
- 2.9% of the private households in the North Simcoe Muskoka LHIN had an insufficient number of bedrooms to accommodate the household makeup.
  - By sub-region and housing suitability, **Barrie and Area** had the highest rate of unsuitable housing (3.3%) and **South Georgian Bay** and **Muskoka** having the lowest (2.5%).

## Language

- In 2016, 89.7% of the population reported English and 2.6% reported French as their mother tongue in North Simcoe Muskoka LHIN.
  - By sub-region, **Muskoka** had the highest proportion (94.1%). **Barrie and Area** had the lowest proportion of residents who identified English as their mother tongue (87.7%).
  - By sub-region, **North Simcoe** had the highest proportion (6.5%) rate of residents who identified French as their mother tongue. **Couchiching** sub-region and **Muskoka** sub-region both had the lowest proportion (1.4%).
- In 2016, 2.7% of North Simcoe Muskoka LHIN residents were Francophone under the 2009 new Inclusive Definition of Francophone.
  - By sub-region, **North Simcoe** had the highest proportion of Francophone residents (6.6%). **Couchiching** sub-region and **Muskoka** sub-region both had the lowest (1.5%).
- 0.3% of the LHIN's population reported no knowledge of either official language.
  - **Barrie and Area** sub-region and **South Georgian Bay** sub-region both reported the highest proportion of residents with no knowledge of English or French (0.4%) and **Muskoka** had the lowest (0.1%).
- Almost 95% of the LHIN's population reported English as the most common language spoken at home, followed by English and a non-official language (1.5%), French (0.7%), Spanish (0.2%) and Polish (0.2%).

## Income

- In the North Simcoe Muskoka LHIN, 12.2% of the population lived on low income, based on the after-tax low income measure (LIM-AT).
  - The proportion of residents living below the low income measure varied by sub-region, from 10.8% in the **Barrie and Area** sub-region to 15.4% in the **North Simcoe** sub-region.
  - The proportion of households in the lowest income quintile ranged across sub-regions in the **North Simcoe Muskoka** LHIN, from 16.2% in the **Barrie and Area** sub-region to 22.5% in the **North Simcoe** sub-region.
- In the North Simcoe Muskoka LHIN, 17.6% of children under the age of 6 lived in low income households.
  - By sub-region, children living in low income households ranged from 15.5% in the **Barrie and Area** sub-region to 23.1% in the **North Simcoe** sub-region.
  - The proportion of households in the highest income quintile varied across sub-regions in the **North Simcoe Muskoka** LHIN, from 14.4 % in the **North Simcoe** sub-region to 20.5% in the **Barrie and Area** sub-region.

## Immigration

- In 2016, immigrants accounted for 11.2% of the North Simcoe Muskoka LHIN population. From 1980 to 2016, 45.9% of immigrants were admitted as economic immigrants, 38.6% were sponsored by family and 14.3% were admitted as refugees. 0.7% of North Simcoe Muskoka LHIN residents were **recent immigrants**, having arrived in Canada between 2011 and 2016. Of the recent immigrants, the highest proportion came from the Philippines (12.9%), followed by the United Kingdom (11.2%).
  - Among the five North Simcoe Muskoka LHIN sub-regions, the percentage of immigrants ranged from 7.7% in **Muskoka** to 13.0% in **Barrie and Area**.
  - The percentage of recent immigrants ranged from 0.3% in **North Simcoe** to 1.0% in **Barrie and Area**.
- In 2016, 11.9% of the North Simcoe Muskoka LHIN population were **first generation Canadians**.

- Among the five North Simcoe Muskoka LHIN sub-regions, the percentage of first generation Canadians ranged from 8.3% in [Muskoka](#) to 14.0% in [Barrie and Area](#).

### Visible Minorities

- In 2016, 5.5% of the North Simcoe Muskoka LHIN population was a visible minority.
  - Among the five North Simcoe Muskoka LHIN sub-regions, the percentage of visible minorities ranged from 1.9% in [Muskoka](#) to 8.6% in [Barrie and](#).

### Indigenous (Aboriginal) Identity

- 5.0% of the North Simcoe Muskoka LHIN's residents identified as Aboriginal (the third highest proportion in the province), with 2.3% identifying as First Nations and 2.5% as Métis.
  - Among the five North Simcoe Muskoka LHIN sub-regions, the percentage of residents reporting Aboriginal identity ranged from 2.5% in [South Georgian Bay](#) to 15.4% in [North Simcoe](#).

### Education

- In 2016, 18.5% of North Simcoe Muskoka LHIN residents of working age had completed post-secondary education, ranking 13th across the province.
  - Across North Simcoe Muskoka sub-regions, the percentage of the population with less than high school ranged from 10.8% in [Barrie and Area](#) to 13.1% in [North Simcoe](#).
  - The percentage of the population with high school completion ranged from 28.4% in [Couchiching](#) to 31.1% in [North Simcoe](#).
  - The percentage of the population with post-secondary education below bachelor's degree ranged from 38.1% in [South Georgian Bay](#) to 42.0% in [North Simcoe](#).
  - The percentage of the population with bachelor's degree completion and beyond ranged from 14.0% in [North Simcoe](#) to 19.6% in [South Georgian Bay](#).

### Labour Force Participation

- In 2016, the labour force participation rate of those 15+ in North Simcoe Muskoka LHIN was 64%, while the unemployment rate was 7.1%.
- Of those employed in 2016, 37% of North Simcoe Muskoka LHIN residents had a commute time from their residence to their place of work of 30 minutes or more, while 21.6% had a commute time of 45 minutes or more.

	Ontario	North Simcoe Muskoka	Comments†
<b>2016 Census Profile</b>			
<b>Census Population 2016</b>			
Dependency ratio (number of "dependents" for every 100 "workers")	64.5	69.7	
<b>Urban-Rural Gradient</b>			
% large urban	68.1%	31.3%	
% medium/small population centre	14.7%	27.2%	
% rural or small communities adjacent to urban areas	8.4%	12.2%	
% rural and small town	8.8%	29.2%	
Land Area (sq km)	908,699	8,449	
Population Density (persons per square kilometre)	14.8	54.9	
<b>Population by Household and Families</b>			
% of people age 65+ living alone	23.5%	22.1%	
% of dwellings in need of major repairs	6.1%	6.2%	
% of households with an insufficient # of bedrooms	6.0%	2.9%	
<b>Language</b>			
% who report English as their mother tongue	69.5%	89.7%	2 <sup>nd</sup> highest
% who report French as their mother tongue	4.3%	2.6%	
% with no knowledge of English or French	2.5%	0.3%	
% Francophone (IDF)	4.7%	2.7%	
<b>Population (in Private Households) Living in Low Income</b>			
% Population living below low-income measure (LIM-AT)	14.4%	12.2%	2 <sup>nd</sup> lowest
% Children living in low income households/LIM (age<6)	19.8%	17.6%	
% Children living in low income households/LIM (age<18)	18.4%	16.0%	2 <sup>nd</sup> lowest
% Seniors living in low income households/LIM (age 65+)	12.0%	10.0%	2 <sup>nd</sup> lowest
<b>Immigration</b>			
% of population who are immigrants	29.1%	11.2%	
% of population who arrived within 5 years	3.6%	0.7%	
% first generation Canadian (children of immigrants)	31.1%	11.9%	
<b>Visible Minorities</b>			
% of population who are visible minorities	29.3%	5.5%	
<b>Indigenous Identity</b>			
% of population of Aboriginal identity	2.8%	5.0%	
% population First Nations identity	1.8%	2.3%	
% population Metis identity	0.9%	2.5%	
% population Inuk identity	0.0%	0.0%	
% Multiple Aboriginal responses	0.0%	0.1%	
% Aboriginal responses not included elsewhere	0.1%	0.1%	
<b>Educational Attainment</b>			
% Population age 25-64 with less than high school	10.4%	11.7%	
% Population age 25-64 with high school completion	24.5%	29.6%	Highest
% Population age 25-64 with post-secondary education below bachelor's degree	33.2%	40.1%	
% Population age 25-64 with bachelor's degree completion and beyond	31.9%	18.5%	2 <sup>nd</sup> lowest
<b>Labour Force Activity</b>			
% In the labour force (Participation rate)	64.7%	64.0%	
% Unemployed	7.4%	7.1%	
% 60 minutes and over commuting duration	12.4%	13.7%	

†Highest/lowest ranking in the province, compared to other LHINs.

## Sub-Region Profiles, 2016 Census

Sub-Region	Barrie and Area	South Georgian Bay	Couchiching	Muskoka	North Simcoe
<b>Census Population 2016</b>					
Dependency ratio (number of "dependents" for every 100 "workers")	63.1	84.2	71.8	75.7	73.3
<b>Urban-Rural Gradient</b>					
% large urban	67.0%	0.0%	0.0%	0.0%	0.0%
% medium/small population centre	12.7%	60.6%	40.9%	0.0%	61.6%
% rural or small communities adjacent to urban areas	16.8%	15.6%	5.9%	0.0%	12.6%
% rural and small town	3.5%	23.8%	53.2%	100.0%	25.8%
Land Area (sq km)	1,181	1,143	1,595	3,940	589
Population Density (persons per square kilometre)	184.1	55.4	47.7	15.4	82.0
<b>Population by Household and Families</b>					
% of people age 65+ living alone	21.8%	21.4%	22.8%	22.3%	22.6%
% Of dwellings in need of major repairs	4.9%	5.5%	7.4%	8.6%	7.7%
% of households with an insufficient # of bedrooms	3.3%	2.5%	2.8%	2.5%	2.7%
<b>Language</b>					
% who report English as their mother tongue	87.7%	89.8%	93.1%	94.1%	87.9%
% who report French as their mother tongue	2.8%	1.8%	1.4%	1.4%	6.5%
% with no knowledge of English or French	0.4%	0.4%	0.2%	0.1%	0.2%
% Francophone	2.8%	1.9%	1.5%	1.5%	6.6%
<b>Population (in Private Households) Living in Low Income</b>					
% Population living below low-income measure (LIM-AT)	10.8%	13.1%	12.9%	13.0%	15.4%
% Children living in low income households/LIM (age<6)	15.5%	19.1%	20.8%	18.0%	23.1%
% Children living in low income households/LIM (age<18)	14.2%	17.9%	17.4%	16.9%	21.1%
% seniors living in low income households/LIM (age 65+)	9.5%	9.3%	10.5%	10.3%	11.4%
<b>Population by Income Quintiles</b>					
% Economic families in Income quintile 1 - lowest income	16.2%	18.8%	18.8%	18.8%	22.5%
% Economic families in Income quintile 2	18.7%	21.9%	20.1%	22.2%	23.5%
% Economic families in Income quintile 3	21.4%	21.4%	20.3%	21.3%	20.7%
% Economic families in Income quintile 4	23.2%	20.5%	21.0%	20.1%	18.9%
% Economic families in Income quintile 5 - highest income	20.5%	17.4%	19.7%	17.6%	14.4%

Sub-Region	Barrie and Area	South Georgian Bay	Couchiching	Muskoka	North Simcoe
<b>Immigration</b>					
% of population who are immigrants	13.0%	12.4%	8.9%	7.7%	9.0%
% of population who arrived within 5 years	1.0%	0.4%	0.4%	0.3%	0.3%
% first generation Canadian (children of immigrants)	14.0%	13.1%	9.3%	8.3%	9.4%
<b>Visible Minorities</b>					
% of population who are visible minorities	8.6%	3.1%	3.3%	1.9%	2.4%
<b>Indigenous Identity</b>					
% of population of Aboriginal identity	3.5%	2.5%	5.6%	3.7%	15.4%
% population First Nations identity	1.8%	1.1%	3.8%	2.1%	4.2%
% population Metis identity	1.6%	1.2%	1.5%	1.4%	10.8%
% population Inuk identity	0.0%	0.0%	0.0%	0.0%	0.1%
% Multiple Aboriginal responses	0.1%	0.1%	0.1%	0.1%	0.2%
% Aboriginal responses not included elsewhere	0.0%	0.0%	0.1%	0.1%	0.2%
<b>Educational attainment</b>					
% Population age 25-64 with less than high school	10.8%	12.4%	12.9%	12.0%	13.1%
% Population age 25-64 with high school completion	29.5%	30.0%	28.4%	30.3%	31.1%
% Population age 25-64 with post-secondary education below bachelor's degree	40.4%	38.1%	40.7%	38.8%	42.0%
% Population age 25-64 with bachelor's degree completion and beyond	19.3%	19.6%	18.0%	18.9%	14.0%
<b>Labour Force Activity</b>					
% In the labour force (Participation rate)	69.9%	57.2%	61.1%	60.1%	56.6%
% Unemployed	7.1%	6.3%	7.2%	7.1%	8.1%
% 60 minutes and over commuting duration	17.9%	11.6%	10.3%	7.0%	8.5%

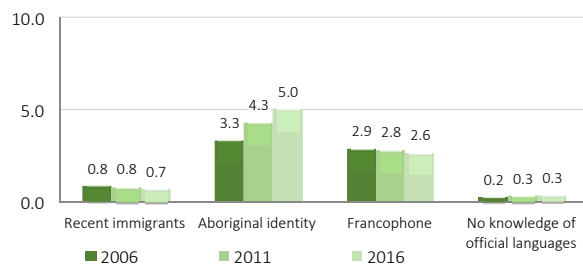
## North Simcoe Muskoka

### 2016 Census Profile Summary

#### Number of private dwellings

2006	207,329
2011	218,755
2016	227,950

#### Immigration, identity and language (% of population)

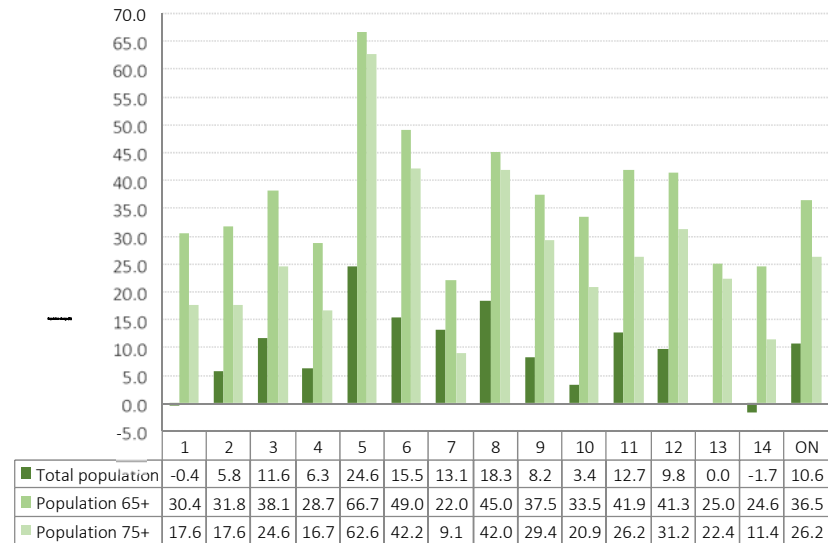


#### Population change (2006-2016)

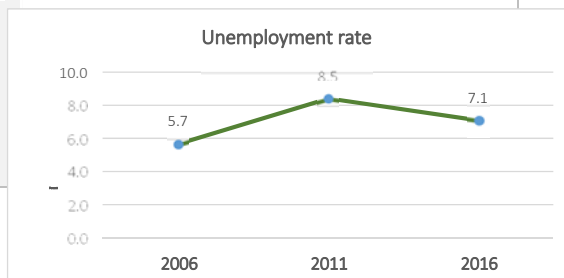
The growth of the senior (65+) population across LHINs ranged from 67% in Central West to 22% in Toronto Central.

The growth of the population age 75+ in North Simcoe Muskoka between 2006 and 2016 was 31.2%, compared to 26.2% for the province as a whole. Total LHIN population growth was 9.8% for the same period.

#### Population change, 2006 to 2016, by LHIN

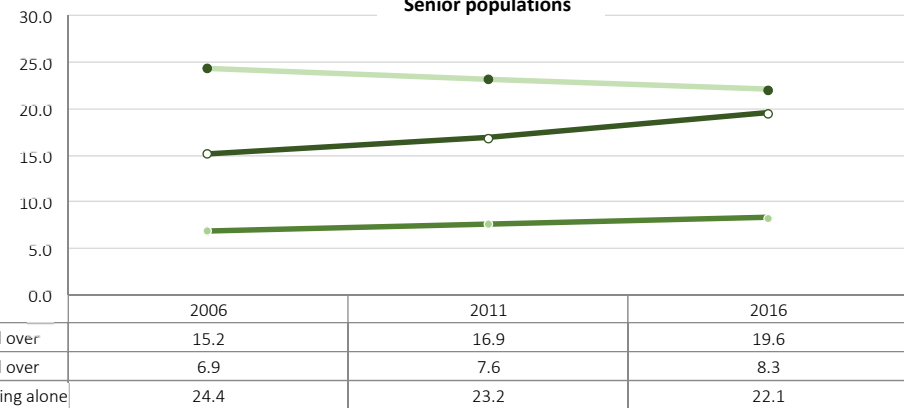


#### Change in unemployment rate, 2006 to 2016 = 24%



○ % population age 65 and over	2006	2011	2016
● % population age 75 and over	15.2	16.9	19.6
● % population age 65+ living alone	6.9	7.6	8.3
	24.4	23.2	22.1

#### Senior populations



## Births and Mortality

### Births and Maternal Outcomes

- In FY 2016/17, there were 4,309 pregnancies and 4,373 births to **North Simcoe Muskoka** women. 96% of births took place in a hospital; the remaining 4% were in the home, birth centre or other (including nursing stations, births outside of Ontario and other Ontario locations).
- In 2016, the crude birth rate (per 1,000 population) in **North Simcoe Muskoka** was 8.7, the 2<sup>nd</sup> lowest rate in the province.
  - By sub-region, **Couchiching**, **North Simcoe** and **Muskoka** had the **lowest** (tied) and 5<sup>th</sup> lowest crude birth rates in the province (6.7, 6.7 and 7.3).
- The fertility rate per 1,000 **North Simcoe Muskoka** females of reproductive age (15 to 49) was 40.6.
  - By sub-region, **Couchiching** and **North Simcoe** had the 5<sup>th</sup> and 8<sup>th</sup> lowest fertility rates for 15-49 year olds in the province (33.7 and 34.8, respectively).
- For teenagers (15 to 19), the fertility rate per 1,000 **North Simcoe Muskoka** females was 6.9.
- In FY2016, 2.7% of women who gave birth were under 20 years of age. 16.9% of women were 35 years or older.
- In 2016, the overall mean age of mothers giving birth in this LHIN was 29.6.
- In 2016, the stillbirth rate per 1,000 live births in **North Simcoe Muskoka** was 10.3, the 2<sup>nd</sup> highest rate in the province.
  - By sub-region, **Barrie and Area** had the **highest** stillbirth rates in the province (13.4).

### Multiple Births

- The multiple live birth rate per 100 live births in 2016 was 3.3.
  - By sub-region, **Muskoka** had the **highest** multiple live birth rate in the province (5.9). **Couchiching** had the 6<sup>th</sup> lowest rate in the province (1.9).

### Pre-Term Births

- In 2016, the pre-term birth rate per 100 live births was 8.5.
  - By sub-region, **North Simcoe** had the 3<sup>rd</sup> highest pre-term birth rate in the province (9.9). **Couchiching** had the 4<sup>th</sup> lowest rate in the province (5.6).

### Gestational Size and Birth Weight

- The low birth weight rate per 100 live births in **North Simcoe Muskoka** was 6.3.
  - By sub-region, **Couchiching** had the 4<sup>th</sup> lowest low birth weight rate (tied with **District of Rainy River** and **Wellington**) in the province (4.3).
- In 2016, the small for gestational age rate per 100 live births was 9.0
- In 2016, the large for gestational age rate per 100 live births was 11.5.

### Attendants, Assisted Delivery & Epidural Anaesthesia during Labour

- In **North Simcoe Muskoka**, 70.1% of hospital births were attended by an obstetrician. 15.0% of births were attended by a family doctor.
- The epidural rate for vaginal deliveries was 57.0 and for all deliveries, 49.4.
- Among vaginal deliveries, the overall assisted delivery rate for **North Simcoe Muskoka** women was 12.4 and using forceps was 3.2. Assisted delivery rate using vacuum extraction was 9.0.

### Caesarean Deliveries

- In FY 2016/17, the total Caesarean section rate per 100 deliveries was 27.7.



- The rate of primary Caesarean section rate (the mother's first Caesarean, regardless if she had given birth vaginally before) was 17.8 per 100 deliveries. Primary Caesarean section rate was higher in women under 35 years of age (18.0) compared to those 35 and over (16.4).
- The rate of repeat Caesarean sections in North Simcoe Muskoka was 86.6 per 100 deliveries, the **highest** rate in the province.

### Breastfeeding

The rate of exclusive breastfeeding at discharge among term live births in this LHIN was 70.1%.

## Births and Maternal Outcomes, Ontario

	North Simcoe Muskoka	Ontario	Comments <sup>†</sup>
Total births in Ontario, LHIN of maternal residence	4,373	141,163	
Hospital	4,201	136,505	
Home	168	3,813	
Birth Centre	0	572	
Crude birth rate (per 1,000 population)	8.7	9.8	2 <sup>nd</sup> lowest
Stillbirth rate (per 1,000 live births)	10.3	8.1	2 <sup>nd</sup> highest
Multiple live birth rate (per 100 live births)	3.3	3.3	
Rate of preterm birth (<37 weeks) (%) <sup>*</sup>	8.3%	8.2%	
Preterm birth rate (per 100 live births) <sup>**</sup>	8.5	8.1	
Total pregnancies in Ontario, LHIN of maternal residence	4,309	138,781	
Fertility rate (per 1,000 females of reproductive age)			
Overall rate (15 to 49)	40.6	41.2	
Teen rate (15 to 19)	6.9	6.3	
Distribution of maternal age (%)			
<20	2.7%	1.9%	
≥ 35	16.9%	23.8%	
Mean age of mother at birth of first infant	28.0	29.3	
Overall mean age of mother at birth	29.6	30.7	
Rate of Caesarean delivery (%), LHIN of hospital	28.0%	28.4%	
Total Caesarean Section Rate	27.7	28.4	
Primary Caesarean Section Rate, LHIN of patient	17.8	19.0	
Primary C-Section Rate (< 35 years)	18.0	17.9	
Primary C-Section Rate (≥ 35 years)	16.4	22.9	Lowest
Repeat Caesarean Section Rate	86.6	82.7	Highest
Epidural Rate for Vaginal Deliveries	57.0	60.3	
Epidural Rate for All Deliveries	49.4	51.0	
Assisted Delivery Rate Among Vaginal Deliveries			
Overall	12.4	12.3	
Vacuum Extraction	9.0	9.1	
Forceps	3.2	2.8	
Healthcare provider who caught the baby for hospital births (%), LHIN of hospital			
Obstetrician	70.1%	78.8%	
Family doctor	15.0%	7.4%	
Midwife	8.9%	7.4%	
Other	5.9%	6.4%	
Low birth weight rate (per 100 live births)	6.3	6.8	
Fullterm low birth weight rate (per 100 live births)	1.9	2.0	
Births small for gestational age (%) <sup>*</sup>	8.6%	9.7%	
Small for gestational age (per 100 live births) <sup>**</sup>	9.0	9.6	
Births large for gestational age (%) <sup>*</sup>	11.0%	9.7%	
Large for gestational age (per 100 live births) <sup>**</sup>	11.5	9.8	
Rate of exclusive breastfeeding among term live hospital births (%), LHIN of maternal residence	70.1%	62.8%	

<sup>†</sup>Ranking in the province compared to other LHINs.

<sup>\*</sup> As reported by BORN Ontario

<sup>\*\*</sup> As reported by Public Health Ontario

## Maternal smoking, alcohol and drug use during pregnancy among all women who live in Ontario and who had a live birth or stillbirth (LHIN of maternal residence), 2016/17 (BORN)

- In North Simcoe Muskoka, the rate of women who self-identified as non-smokers at first prenatal visit was 84.0%. At the time of labour, 86.6% were non-smokers.
  - The prevalence of smoking 1-10 cigarettes and 10+ cigarettes at the first prenatal visit was 9.2% and 5.8%, respectively.
- 3.4% of the women reported drinking alcohol. 4.4% reported using drugs during pregnancy.

	North Simcoe Muskoka	Ontario	Comments <sup>†</sup>
<b>Maternal smoking at first prenatal visit (%)</b> LHIN of maternal residence <sup>‡</sup>			
% women who reported smoking (0) cigarettes/day	84.0%	90.7%	
% women who reported smoking (1 – 10) cigarettes/day	9.2%	5.5%	
% women who reported smoking (10+) cigarettes/day	5.8%	3.2%	
<b>Maternal smoking at time of labour (%)</b>			
% women who reported smoking (0) cigarettes/day	86.6%	92.5%	
% women who reported smoking (1 – 10) cigarettes/day	8.0%	4.6%	
% women who reported smoking (10+) cigarettes/day	4.7%	2.6%	
Alcohol consumption during pregnancy (%)	3.4%	2.6%	
Drug and substance exposure during pregnancy (%)	4.4%	2.3%	

<sup>†</sup>Ranking in the province compared to other LHINs.

## Life Expectancy

- Life expectancy at birth for both males and females in 2012-2014 was 81 years. By sex, life expectancy at birth for males in North Simcoe Muskoka LHIN was 80 years, and 83 years for females.
- Life expectancy at age 65 for both sexes from 2012-2014 was 20 years. By sex, life expectancy at age 65 for males in Toronto Central LHIN was 19 years. Life expectancy at age 65 for females from 2012-2014 was 22 years.

	North Simcoe Muskoka LHIN	Ontario	Rank among LHINs <sup>†</sup>
<b>Life Expectancy</b>			
Life expectancy at birth- Both Sexes 2012-14	81.4	82.3	
Life expectancy at birth- Male 2012-14	79.5	80.2	
Life expectancy at birth- Female 2012-14	83.2	84.3	
Life expectancy at age 65- Both Sexes 2012-14	20.4	20.9	
Life expectancy at age 65- Male 2012-14	19.1	19.3	
Life expectancy at age 65- Female 2012-14	21.5	22.2	

<sup>†</sup>Ranking in the province compared to other LHINs (highest and lowest 2).

## Mortality and Potential Years of Life Lost

- In 2012, 3,702 North Simcoe Muskoka LHIN residents died.
- The all-cause mortality rate for LHIN residents was 803 per 100,000 population in 2012.
  - By sub-region, **North Simcoe** had the seventh highest all-cause mortality rate per 100,000 population (1,008).
- Ischaemic heart disease was the leading cause of death in North Simcoe Muskoka, followed by cancer of lung and bronchus and Dementia and Alzheimer's disease.
- 22,078 years of potential life were lost by LHIN residents in 2012.
- The LHIN's potential years of life lost (PYLL) rate for 2012 was 5,183 per 100,000 population aged less than 75. Since 2007, the PYLL rate decreased by 0.4% for North Simcoe Muskoka LHIN residents.

- The leading causes of PYLL in 2012 were cancer of lung and bronchus, Ischaemic heart disease and intentional self-harm.
- North Simcoe Muskoka had the second highest rate of PYLL for cancer of lung and bronchus (509). North Simcoe Muskoka had the **lowest** rate of PYLL for perinatal conditions (159).

### Mortality, Potential Years of Life Lost

	North Simcoe Muskoka LHIN	Ontario	Rank among LHINs†	Range across North Simcoe Muskoka sub-regions
<b>Mortality, 2012</b>				
Total deaths, 2012	3,702	90,525		492- 1,363
% change in total deaths (2007-2012)	5.3%	4.1%		NA
All-cause mortality rate per 100,000 population	803.1	674.9		656.5- 1,007.6
% change in all-cause mortality rate (2007-2012)	1.0%	-0.7%		NA
% of deaths that were premature (age < 75)	38.3%	37.3%		36.6%- 40.0%
<b>Top 10 leading causes of death, 2012 (rates per 100,000 population)<sup>3</sup></b>				
Ischaemic heart disease	118.9	98.0		98.5- 201.7
Dementia & Alzheimer's disease	60.1	55.6		53.4- 85.6
Cancer of lung & bronchus	69.6	50.3		52.6- 92.5
Cerebrovascular diseases	43.0	36.6		35.0- 57.7
Chronic lower respiratory diseases	44.3	28.4		32.7- 58.8
Cancer of colon, rectum, anus	29.9	23.4		23.6- 41.8
Diabetes	30.2	20.7		24.4- 48.7
Cancer of lymph, blood & related	20.0	20.0		16.1- 31.0
Falls	19.7	17.4		10.4- 37.3
Influenza & pneumonia	17.8	15.2		NA
<b>Potential years of life lost (PYLL), 2012</b>				
<b>Total PYLL, 2012</b>	22,078	551,256		2,740- 9,458
% change in PYLL (2007-2012)	3.2%	-0.6%		NA
PYLL rate per 100,000 population (age < 75)	5,183	4,405		4,707.4- 6,497.7
% change in PYLL rate (2007-2012)	-0.4%	-5.0%		NA
<b>Top 10 leading causes of PYLL, 2012 (rates per 100,000 population, age &lt; 75)<sup>4</sup></b>				
Ischaemic heart disease	493.9	406.8		453.3- 681.5
Cancer of lung & bronchus	509.2	322.6	2 <sup>nd</sup> highest	398.5- 703.7
Intentional self-harm	426.1	284.7		257.1- 439.8
Perinatal conditions	158.5	253.3	Lowest	97.9- 287.1
Accidental poisoning	247.7	190.6		65.8- 312.9
Transport accidents	197.9	171.8		143.8- 362.8
Cancer of lymph, blood & related	141.8	149.1		NA
Congenital malformations, deformations, chromosomal abnormalities	240.6	149.0		72.1- 223.1
Cancer of colon, rectum, anus	186.9	141.3		169.7- 303.0
Diabetes	158.5	110.9		NA

†Ranking in the province, compared to other LHINs.

<sup>3</sup> Mean rate from 2010-2012

<sup>4</sup> Mean rate from 2010-2012

## General Health, Risk Factors, and Prevention

### General Health

- In 2015-16, 60% of North Simcoe Muskoka LHIN residents said they had very good or excellent health.
  - The proportion of residents rating their health as *very good or excellent* in the [North Simcoe](#) sub-region was **significantly lower** than the rate for all Ontarians.
- 66% reported very good or excellent mental health. Although the proportion of residents indicating a low self-perceived mental health is the lowest among LHINs, the smaller sampling rate does not allow the drawing of conclusions that the rate is significantly different from Ontario, overall. The proportion declined between 2005 and 2014, as it did in Ontario, overall.
- 26% of North Simcoe Muskoka residents reported that most days were “quite a bit” or “extremely” stressful.

### Prevention

- 92% of North Simcoe Muskoka residents reported having a regular medical doctor.
  - Compared to Ontario, the proportion of people with a regular medical doctor was **significantly higher** in the [South Georgian Bay](#) sub-region.
- 33% of residents of North Simcoe Muskoka LHIN indicated that they received a flu shot in the year preceding the survey.

### Risk Factors

- 20% of North Simcoe Muskoka residents reported daily or occasional smoking in 2015-16.
  - Compared to Ontario, **significantly higher** smoking rates are found in the [Couchiching](#) sub-region.
- The proportion of people reporting heavy drinking in North Simcoe Muskoka (23.5%) was **significantly higher** than the Ontario proportion. Heavy drinking is defined as having consumed 5 or more drinks for males and 4 or more drinks for women on at least one occasion at least once a month during the past year.
- The majority-65%- of North Simcoe Muskoka residents were either overweight or obese. The rates have increased over time, as they’ve done in Ontario overall.
  - Overweight or obesity rates are **significantly higher** than Ontario in the [South Georgian Bay](#) and [Muskoka](#) sub-regions.
- 39% of North Simcoe Muskoka residents were physically inactive—now defined as less than 150 minutes of moderate to vigorous activity per week.
- 71% of North Simcoe Muskoka residents did not consume enough fruits and vegetables (i.e., had fewer than 5 servings of fruits or vegetables daily).
  - Compared to Ontario, the proportion of residents consuming less than 5 servings per day is **significantly higher** in the [Couchiching](#) sub-region.

## General Health, Risk Factors, and Prevention; North Simcoe Muskoka LHIN

	North Simcoe Muskoka LHIN 2015-16	Ontario (2015-16)	Rank among LHINs <sup>†</sup> (2015-16)	Range across North Simcoe Muskoka sub-regions (2011-14)*
<b>General Health</b>				
General health, % of the population age 12+ with...				
Very good or excellent self-perceived health	60%	61%		49-62%
Very good or excellent self-perceived mental health	66%	71%	Lowest	65-73%
Days that are 'quite a bit' or 'extremely' stressful (age 15+)	26%	22%	Highest	
<b>Prevention</b>				
Use of Health Services and Preventive Care, % of the population age 12+ who...				
Have a regular medical doctor	92%	90%	2 <sup>nd</sup> highest	93-97%
Have consulted with family doctor/general practitioner (past yr)	75%	74%		
Received flu shot in the past year	33%	33%		
<b>Risk Factors</b>				
Risk factors, % of the population age 12+ who...				
Are daily or occasional smokers	20%	17%		15-26% <sup>c</sup>
Are exposed to second-hand smoke in the home	6.7%	6.9%		
Are heavy drinkers	24% <sup>1</sup>	18%	2 <sup>nd</sup> highest	
Are overweight or obese (age 18+)	65%	61%		55-64%
Are overweight (age 18+)	33%	35%		31-43%
Are obese (age 18+)	32%	26%		17-27% <sup>c</sup>
Are physically inactive	39%	42%		36-45%
Consume < 5 servings of fruits/vegetables daily	71%	72%	3 <sup>rd</sup> lowest	52-68%

\*2011-2014 sub-region rates are not directly comparable with LHIN and Ontario rates from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

<sup>†</sup>Top or bottom 3 ranking in the province, compared to other LHINs. Interpret with caution, rank based on point estimate, which may or may not be significantly different from Ontario. See significance flags for each measure below.

<sup>1</sup> LHIN is **significantly higher** than Ontario

<sup>-1</sup> LHIN is **significantly lower** than Ontario

<sup>c</sup> Estimates with high sampling variability (CV between 16.6-33.3) must be used with caution.

## Chronic Conditions

### Prevalence, mortality, hospital separations and hospital days of stay for selected chronic conditions

- 42.4% of North Simcoe Muskoka residents (aged 12+) reported having a one or more chronic conditions with 18.3% having two or more chronic conditions.
- Chronic conditions with the highest or lowest prevalence rates compared to other LHINs were as follows: Cancer - 2<sup>nd</sup> lowest; Suffer from effects of a stroke - **highest**
- The mean health care cost per user for North Simcoe Muskoka residents in 2015/16 was \$3,150 (\$2,750 for Ontario).
- 6.3% of the patients were complex (4+ conditions), 5.8% for Ontario.
- The mean healthcare cost of a complex patient was \$22,550 compared to \$22,050 for Ontario.
- 5.9% of the patients were high cost user patients, 5.0% for Ontario.
- The mean healthcare cost per high cost user was \$37,700 compared to \$37,700 for Ontario.
- The hospitalization rate (per 100,000 population) for asthma in North Simcoe Muskoka LHIN was 25.5 compared to 34.3 for Ontario. North Simcoe Muskoka LHIN was among the 3 LHINs with the lowest rates.
- The hospitalization rate (per 100,000 population) for cardiovascular disease in North Simcoe Muskoka LHIN was 1052.1 compared to 916.9 for Ontario. North Simcoe Muskoka LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for cerebrovascular disease in North Simcoe Muskoka LHIN was 152.1 compared to 133.2 for Ontario. North Simcoe Muskoka LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for ischemic heart disease in North Simcoe Muskoka LHIN was 399.7 compared to 314.8 for Ontario. North Simcoe Muskoka LHIN was among the 3 LHINs with the highest rates.

## Chronic Conditions, Complex Patients

Condition	North Simcoe Muskoka	Ontario	Comment
<b>Self-reported prevalence (2015-16), rate per 100, age 12+</b>			
Arthritis	22.8	20.6	
Asthma	9.2 <sup>C</sup>	8.7	
Cancer	0.9 <sup>D</sup>	1.3	2 <sup>nd</sup> lowest
Chronic Obstructive Pulmonary Disease (COPD) (age 35+)	5.7 <sup>D</sup>	4.0	
Diabetes	6.8 <sup>C</sup>	7.4	
High blood pressure	20.2	18.2	
Heart disease	5.3	4.6	
Suffer from effects of stroke	2.3 <sup>D</sup>	1.3	Highest
Have a chronic condition	42.4	39.6	
Have multiple chronic conditions <sup>1</sup>	18.3	16.2	

C: 0.15<CV≤0.25 Marginal (Use with caution-high sampling variability)

D: 0.25<CV≤0.35 Marginal (Use with caution-high sampling variability)

1 - Of the selected conditions on this list

## Acute Inpatient Hospital Separations (2016 calendar year)

**AGE STANDARDIZED rate per 100,000**

Asthma	25.5	34.3
Cardiovascular disease	1,052.1	916.9
Cerebrovascular disease	152.1	133.2
COPD	210.6	171.8
Diabetes	120.8	100.2
Hypertension	17.1	18.0
Ischemic heart disease	399.7	314.8
Lower respiratory disease	238.3	208.9
Respiratory disease	611.6	599.7
Stroke	118.9	112.5

## Complex Patients and high cost users, 2015/16

Mean health care cost per user \$	\$ 3,150	\$ 2,750
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$ 22,550	\$ 22,050
# of patients that are complex	24,580	680,115
% of all patients (health care users) that are complex	6.3%	5.8%
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$ 37,700	\$ 37,700
# of patients that are high cost users	23,165	581,670
% of patients that are high cost users	5.9%	5.0%



### BARRIE AND AREA SUB-REGION (1201)

- The prevalence rate (per 100) for the population with asthma was 10.9 (Ontario - 7.8). **Barrie and Area** sub-region's rate was **significantly higher** than Ontario.
- The mean health care cost per user in **Barrie and Area** sub-region was \$2,650 (Ontario - \$2,750).
- 4.9% of patients from **Barrie and Area** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Barrie and Area** sub-region was \$22,900 (Ontario - \$22,050).
- 5.0% of patients from **Barrie and Area** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Barrie and Area** sub-region was \$35,950 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Barrie and Area	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	19.9	17.3	33
Asthma	10.9	7.8	8
Diabetes	5.8	6.8	51
High blood pressure	17.5	18.1	46
Heart disease	5.1	5.0	35

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	24.5	34.3
Cardiovascular disease	1,033.8	916.9
Cerebrovascular disease	143.2	133.2
COPD	216.0	171.8
Diabetes	124.2	100.2
Hypertension	20.4	18.0
Ischemic heart disease	376.0	314.8
Lower respiratory disease	242.9	208.9
Respiratory disease	592.0	599.7
Stroke	107.5	112.5

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$2,650	\$ 2,750
Complex Patients (4+ conditions)		
Mean health care cost per complex patient \$	\$22,900	\$ 22,050
# of patients that are complex	9,045	680,115
% of all patients (health care users) that are complex	4.9%	5.8%
High cost users (Top 5%) #		
Mean health care cost per high cost user \$	\$35,950	\$ 37,700
# of patients that are high cost users	9,275	581,670
% of patients that are high cost users	5.0%	5.0%

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## SOUTH GEORGIAN BAY SUB-REGION (1202)

- The prevalence rate (per 100) for the population with asthma was 4.6 (Ontario - 7.8). **South Georgian Bay** sub-region's rate was **significantly lower** than Ontario. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The age standardized rate (per 100,000) for hospitalization for diabetes was 161.0 (Ontario - 100.2). **South Georgian Bay** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **South Georgian Bay** sub-region was \$3,100 (Ontario - \$2,750).
- 7.4% of patients from **South Georgian Bay** sub-region were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the highest percentage of complex patients.
- The mean health care cost per complex patient in **South Georgian Bay** sub-region was \$19,600 (Ontario - \$22,050).
- 6.3% of patients from **South Georgian Bay** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **South Georgian Bay** sub-region was \$34,450 (Ontario - \$37,700). It was among the 8 sub-regions with the lowest mean cost per high cost user.

## Chronic Conditions, Complex Patients

Condition	South Georgian Bay	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	20.5	17.3	29
Asthma	4.6	7.8	70
Diabetes	6.0	6.8	49
High blood pressure	22.6	18.1	13
Heart disease	5.1	5.0	34

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
<i>AGE STANDARDIZED rate per 100,000</i>			
Asthma	29.5	34.3	48
Cardiovascular disease	1,073.7	916.9	24
Cerebrovascular disease	159.8	133.2	22
COPD	214.2	171.8	33
Diabetes	161.0	100.2	8
Hypertension	12.2	18.0	60
Ischemic heart disease	363.3	314.8	35
Lower respiratory disease	246.7	208.9	33
Respiratory disease	605.1	599.7	47
Stroke	114.6	112.5	43

Complex Patients and high cost users, 2015/16	Ontario	Ranking*	
Mean health care cost per user \$	\$3,100	\$ 2,750	31.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$19,600	\$ 22,050	63
# of patients that are complex	3,950	680,115	
% of all patients (health care users) that are complex	7.4%	5.8%	8
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$34,450	\$ 37,700	69
# of patients that are high cost users	3,370	581,670	
% of patients that are high cost users	6.3%	5.0%	25

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

### COUCHICHING SUB-REGION (1203)

- The prevalence rate (per 100) for the population with high blood pressure was 24.4 (Ontario - 18.1). **Couchiching** sub-region's rate was **significantly higher** than Ontario.
- The mean health care cost per user in **Couchiching** sub-region was \$3,350 (Ontario - \$2,750).
- 7.5% of patients from **Couchiching** sub-region were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the highest percentage of complex patients.
- The mean health care cost per complex patient in **Couchiching** sub-region was \$22,200 (Ontario - \$22,050).
- 6.6% of patients from **Couchiching** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Couchiching** sub-region was \$37,200 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Couchiching	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	17.4	17.3	43
Asthma	7.4	7.8	46
Diabetes	8.4	6.8	17
High blood pressure	24.4	18.1	2
Heart disease	6.3	5.0	19

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
AGE STANDARDIZED rate per 100,000			
Asthma	30.5	34.3	46
Cardiovascular disease	936.9	916.9	47
Cerebrovascular disease	166.4	133.2	15
COPD	193.5	171.8	42
Diabetes	100.1	100.2	45
Hypertension	17.2	18.0	41
Ischemic heart disease	374.4	314.8	31
Lower respiratory disease	224.0	208.9	41
Respiratory disease	602.6	599.7	48
Stroke	132.8	112.5	22

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$3,350	\$ 2,750	18
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$22,200	\$ 22,050	37
# of patients that are complex	4,650	680,115	
% of all patients (health care users) that are complex	7.5%	5.8%	7
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$37,200	\$ 37,700	32
# of patients that are high cost users	4,085	581,670	
% of patients that are high cost users	6.6%	5.0%	17

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

### MUSKOKA SUB-REGION (1204)

- The age standardized rate (per 100,000) for hospitalization for asthma was 15.2 (Ontario - 34.3). **Muskoka** sub-region was among the 8 sub-regions with the lowest hospitalization rates.
- The mean health care cost per user in **Muskoka** sub-region was \$3,400 (Ontario - \$2,750).
- 6.6% of patients from **Muskoka** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Muskoka** sub-region was \$22,550 (Ontario - \$22,050).
- 6.8% of patients from **Muskoka** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Muskoka** sub-region was \$36,250 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Muskoka	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	21.8	17.3	24
Asthma	14.3	7.8	1
Diabetes	4.9	6.8	61
High blood pressure	20.6	18.1	27
Heart disease	4.8	5.0	45

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	15.2	74
Cardiovascular disease	996.7	36
Cerebrovascular disease	153.0	27.5
COPD	197.4	38
Diabetes	89.6	51
Hypertension	13.4	57
Ischemic heart disease	358.9	36
Lower respiratory disease	215.5	45
Respiratory disease	601.9	49
Stroke	126.6	29

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,400	17
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$22,550	32
# of patients that are complex	3,255	
% of all patients (health care users) that are complex	6.6%	23
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$36,250	39.5
# of patients that are high cost users	3,365	
% of patients that are high cost users	6.8%	13

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.



## NORTH SIMCOE SUB-REGION (1205)

- The prevalence rate (per 100) for the population with arthritis (14+) was 25.7 (Ontario - 17.3). **North Simcoe** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with high blood pressure was 23.5 (Ontario - 18.1). It was among the 8 sub-regions in Ontario with the highest prevalence rate.
- The prevalence rate (per 100) for the population with heart disease was 8.1 (Ontario - 5). It was among the 8 sub-regions in Ontario with the highest prevalence rate. *Note: The reported rate had high sampling variability; the rate must be used with caution.*
- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 1394.9 (Ontario - 916.9). **North Simcoe** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 575.4 (Ontario - 314.8). **North Simcoe** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **North Simcoe** sub-region was \$4,600 (Ontario - \$2,750). It was among the 8 sub-regions with the highest mean cost per user.
- 8.9% of patients from **North Simcoe** sub-region were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the highest percentage of complex patients.
- The mean health care cost per complex patient in **North Simcoe** sub-region was \$25,200 (Ontario - \$22,050).
- 7.4% of patients from **North Simcoe** sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the highest percentage of high cost users.
- The mean health care cost per high cost user in **North Simcoe** sub-region was \$48,900 (Ontario - \$37,700). It was among the 8 sub-regions with the highest mean cost per high cost user.

## Chronic Conditions, Complex Patients

Condition	North Simcoe	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	25.7	17.3	8
Asthma	8.8	7.8	26
Diabetes	6.0	6.8	50
High blood pressure	23.5	18.1	7
Heart disease	8.1	5.0	5

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
AGE STANDARDIZED rate per 100,000			
Asthma	26.5	34.3	54
Cardiovascular disease	1,394.9	916.9	5
Cerebrovascular disease	169.0	133.2	13
COPD	266.4	171.8	16
Diabetes	151.7	100.2	16
Hypertension	19.3	18.0	24.5
Ischemic heart disease	575.4	314.8	5
Lower respiratory disease	294.1	208.9	19
Respiratory disease	821.9	599.7	14
Stroke	140.6	112.5	13

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$4,600	\$ 2,750	2
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$25,200	\$ 22,050	16
# of patients that are complex	3,680	680,115	
% of all patients (health care users) that are complex	8.9%	5.8%	1
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$48,900	\$ 37,700	1
# of patients that are high cost users	3,070	581,670	
% of patients that are high cost users	7.4%	5.0%	4

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## Human Resources

### Physicians

- In 2016, there were approximately 831 physicians in North Simcoe Muskoka LHIN
  - This represents the equivalent of approximately 171 physicians for every 100,000 persons in North Simcoe Muskoka LHIN.
  - The number of physicians in North Simcoe Muskoka LHIN increased by close to 14% between 2013 and 2016 with higher growth occurring among family physicians than specialists.
- Between 2013 and 2016, there was an increase of approximately 62 family physicians in North Simcoe Muskoka LHIN
  - The majority of the increase in North Simcoe Muskoka LHIN occurred with 53 additional family physicians between 30-64 years of age.
- In 2016, approximately 10% of family physicians in North Simcoe Muskoka LHIN were at or beyond the age of retirement (65 years of age or older).

### Nurses

- In 2016, there were 5,133 total nurses in North Simcoe Muskoka LHIN.
- The total number of nurses increased slightly by 2.2% in North Simcoe Muskoka LHIN between 2013 and 2016,
  - While the number of Registered Nurses in North Simcoe Muskoka LHIN between 2013 and 2016 decreased, there were substantial increases in the number of Nurse Practitioners (20% increase) and Registered Practical Nurses (10% increase) during the same time period.
- In 2016, there were approximately 1055 nurses for every 100,000 residents of North Simcoe Muskoka LHIN.

### Other Allied Health Professionals

- Between 2013 and 2016, the greatest growth in the number of allied health professionals in North Simcoe Muskoka LHIN was among pharmacists (an increase of 61 or about 17%), optometrists (an increase of 8 or about 14%) and midwives (an increase of 3 or approximately 13%).
- There was notable reductions in the number of audiologists (5 fewer or 26% less), speech-language pathologists (9 fewer or 11% less), psychologists (5 fewer or 11% less), and opticians (6 fewer or 5.3% less) in North Simcoe Muskoka LHIN between 2013 and 2016.

North Simcoe Muskoka LHIN					
Physicians	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Total Family Medicine Physicians</b>					
Number of family medicine physicians	424	452	465	486	14.6%
Rate per 100,000 population	90.9	95.5	97.0	99.9	10.0%
<b>Total Specialists</b>					
Number of specialists	307	324	348	345	12.4%
Rate per 100,000 population	65.8	68.4	72.6	70.9	7.8%
<b>Total Physicians</b>					
Number of total physicians	731	776	813	831	13.7%
Rate per 100,000 population	156.7	163.9	169.5	170.8	9.1%

Family Physicians, by age group - count					
Age <30	7			9	28.6%
Age 30-64	374			427	14.2%
Age 65-74	39			48	23.1%
Age 75+	4			2	-50.0%
Grand Total	424			486	14.6%
Age 65+	43			50	16.3%

Family Physicians, by age group – percent					
Age <30	1.7%			1.9%	12.2%
Age 30-64	88.2%			87.9%	-0.4%
Age 65-74	9.2%			9.9%	7.4%
Age 75+	0.9%			0.4%	-56.4%
Age 65+	10.1%			10.3%	1.4%

North Simcoe Muskoka LHIN					
Nurses	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Registered Nurses</b>					
Number of RNs	3,252	3,209	3,234	3,180	-2.2%
Rate per 100,000 population	696.0	677.8	674.4	653.7	-6.1%
<b>Registered Practical Nurses</b>					
Number of RPN nurses	1,681	1,764	1,833	1,845	9.8%
Rate per 100,000 population	359.8	372.6	382.2	379.3	5.4%
<b>Nurse Practitioners</b>					
Number of NP nurses	90	103	113	108	20.0%
Rate per 100,000 population	19.3	21.8	23.6	22.2	15.3%
<b>Total Nurses</b>					
Total Nurse - Number of nurses	5,023	5,076	5,180	5,133	2.2%
Total Nurse - Rate per 100,000 population	1,075.1	1,072.1	1,080.2	1,055.2	-1.8%

North Simcoe Muskoka LHIN					
Other Regulated Health Professionals	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Audiologists</b>					
Audiologist - Number	19	17	17	14	-26.3%
Audiologist - Rate per 100,000 population	4.1	3.6	3.5	2.9	-29.2%
<b>Midwives</b>					
Midwife - Number	23	25	25	26	13.0%
Midwife - Rate per 100,000 population	4.9	5.3	5.2	5.3	8.6%
<b>Occupational Therapists</b>					
Occupational Therapist - Number	149	147	147	150	0.7%
Occupational Therapist - Rate per 100,000 population	31.9	31.0	30.7	30.8	-3.3%
<b>Opticians</b>					
Optician - Number	113	119	126	107	-5.3%
Optician - Rate per 100,000 population	24.2	25.1	26.3	22.0	-9.1%
<b>Optometrists</b>					
Optometrist - Number	58	61	63	66	13.8%
Optometrist - Rate per 100,000 population	12.4	12.9	13.1	13.6	9.3%
<b>Pharmacists</b>					
Pharmacist - Number	351	385	418	412	17.4%
Pharmacist - Rate per 100,000 population	75.1	81.3	87.2	84.7	12.7%
<b>Psychologists</b>					
Psychologist - Number	47	43	43	42	-10.6%
Psychologist - Rate per 100,000 population	10.1	9.1	9.0	8.6	-14.2%
<b>Speech-Language Pathologists</b>					
Speech-Language Pathologist - Number	82	81	79	73	-11.0%
Speech-Language Pathologist - Rate per 100,000 population	17.6	17.1	16.5	15.0	-14.5%

## Primary Care

### Primary Care Enrolment

- Approximately 400,000 (n=400,029) North Simcoe Muskoka LHIN residents were enrolled with a PEM and 89,065 residents were affiliated with FFS physicians (i.e. not enrolled).
- More than half of LHIN residents (54%) were affiliated with FHT physicians (within a FHO) in 2016/2017, and less than one-fifth (18%) access FFS physicians.
- There are 17 practices with 338 physicians in the North Simcoe Muskoka LHIN, and approximately two-thirds of physicians were affiliated with a FHT in a FHO (n=204).

### Selected Measures from the Health Care Experience Survey

#### Self-reported access to, and satisfaction with, primary care

	Ontario (2017)	LHIN (2017)	Range Across NSM sub-regions (2014-2017)
Percentage who are satisfied with health care in their community	87%	87%	82% to 90%
Percentage with primary care providers (attached patients)	94%	96%	95% to 98%
Percentage who saw their primary care provider within the same day/next day when sick	40%	37%	21% to 40%
Percentage who went to ED for something that could have been treated by primary care provider	42%	43%	29% to 64%
Percentage who found it difficult to access care after-hours without going to an emergency department	53%	66% <sup>H</sup>	57% to 77%
Percentage who went to walk-in clinic in past 12 months	30%	22% <sup>L</sup>	14% to 39%
Percentage who went to a walk in clinic for something that could have been treated by provider if they were available	92%	94%	93% to 95%*

<sup>H</sup>=significantly higher than the province

<sup>L</sup>=significantly lower than the province

\* some sub-regions not reportable

- Eighty-seven percent (87%) of North Simcoe Muskoka residents were satisfied with health care in their community.
  - **Barrie and Area** sub-region was **significantly lower** than the provincial proportion at 82%.
- In 2017, 96% of North Simcoe Muskoka adults (aged 16 years and older) had a primary care provider.
  - Three sub-regions (**South Georgian Bay** and **Couchiching** at 98%; **North Simcoe** at 97%) were **significantly higher** than the province.
- In 2017, 37% of North Simcoe Muskoka LHIN residents were able to see their primary care provider within the same day/next day when they were sick.
  - **Barrie and Area** (30%), **Muskoka** (35%), **North Simcoe** (21%) reported **significantly lower** proportions than the rest of the province.
- Forty-three (43%) percent of North Simcoe Muskoka LHIN went to the ED for something that could have been treated by their primary care provider.
  - **North Simcoe** sub-region is **significantly higher** than the provincial proportion at 64%.

- Two-thirds (66%) of North Simcoe Muskoka LHIN residents found it difficult to access after-hours care without going to the ED. This was **significantly higher** than the provincial value (53%).
  - [South Georgian Bay](#) (69%), [Muskoka](#) (77%), and [North Simcoe](#) (73%) sub-regions reported **significantly higher** proportions than the provincial proportion.
- In the North Simcoe Muskoka LHIN, 22% of adults attended walk-in clinics in the previous 12 months. This was **significantly lower** than the provincial value (30%).
  - There was substantial variation across the sub-regions, where [Barrie and Area](#) was **significantly higher** in walk-in visitors compared to the province (39%), but the rest of the sub-regions were **significantly lower** than the provincial proportion.
  - Ninety-four percent (94%) felt that their walk-in visit could have been addressed by a primary care provider if one had been available.

## Community Care

- North Simcoe Muskoka LHIN ranks second lowest in CMH&A\_Resident DaysResident Days per 1,000 population with 30 (province is 271).
- North Simcoe Muskoka LHIN ranks second highest in CSS\_Community Group Participants Patient Attendances per 1,000 population with 62 (province is 33).
- North Simcoe Muskoka LHIN ranks second highest in CTC\_Community Visits- Non Face to Face Visits per 1,000 population 0-18 with 94 (province is 31).
- North Simcoe Muskoka LHIN ranks highest in CTC\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population 0-18 with 55 (province is 3).
- North Simcoe Muskoka LHIN ranks second highest in CSS\_Community Group Participants Patient Attendances per 1,000 population 75+ with 753 (province is 465).



## Mental Health

### Wait Time for Community Services

- Abuse services had the longest median wait times among the community mental health (MH) services in North Simcoe Muskoka LHIN (60 days) in 2017/18, 55 days longer than the province's median wait for that service.
- Among the substance abuse (SA) services provided in North Simcoe Muskoka LHIN, residential treatment had the longest median wait times (36 days), shorter than province's median wait by 6 days in 2017/18.
- For problem gambling, only community treatment is provided in this LHIN. The median wait time for this treatment was 1 day shorter than the provincial median wait of 10 days.

### Mental Health and Substance Abuse Emergency Department Visits

- In 2016/17, there were 9,180 unscheduled ED visits for North Simcoe Muskoka residents where the main problem was a MH/SA condition. In total there were 12,064 visits with a MH/SA condition in any of the diagnostic fields.
- Between 2013/14 and 2016/17, there was 10.7% growth in visits with a MH/SA main problem diagnosis (lower than the province's value of 20.9%) and 12.1% growth in visits with a MH/SA condition in any diagnostic field (lower than the province's value of 21.1%).
- The MH/SA ED visit rate per 1,000 population was lower than the provincial value (18.9 compared to 19.2). Between 2013/14 and 2016/17 North Simcoe Muskoka LHIN had the lowest growth in visit rate (main diagnosis) in the province at 6.2%.
- Visits with a MH/SA main problem diagnosis accounted for 3.6% of all ED visits for North Simcoe Muskoka LHIN residents.
- In 2016/17, there were 239 ED visits of North Simcoe Muskoka residents for opioid overdose. Of those, 60.7% were accidental, the second highest proportion in the province.
- The crude rate of ED visits for opioid overdose in FY2016/17 for North Simcoe Muskoka residents was 4.9, the second highest rate in the province. Between 2013/14 and 2016/17, there was a 41.7% growth in the visit rate for opioid overdose for all North Simcoe Muskoka residents, lower than the province (48.4%).

### Unscheduled emergency department utilization for mental health and substance abuse conditions, North Simcoe Muskoka LHIN and Ontario residents, 2016/17

Measure	North Simcoe Muskoka LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient<sup>†</sup></b>				
Main problem visits	9,180	268,514	10.7%	
% of total ED visits	3.6%	4.3%	-	
Any problem visits	12,064	338,260	12.1%	
% of total ED visits	4.7%	5.5%	-	
Main problem, visits per 1,000	18.9	19.2	6.2%	
Any problem, visits per 1,000	24.8	17.1%	7.5%	
ED visits for opioid overdose	239	4,831	47.5%	
% of visits that were accidental	60.7%	50.1%	-	2 <sup>nd</sup> highest
Crude rate per 10,000 population	4.9	3.5	41.7%	2 <sup>nd</sup> highest

<sup>†</sup>LHIN of patient results for Ontario exclude out-of-province residents

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

### Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility

- In 2016/17, there were 9,373 unscheduled ED visits in North Simcoe Muskoka LHIN hospitals, where the main problem was a MH/SA condition. 2.6% of these visits were made by homeless individuals.
- There were 2,950 admissions and 3,278 active cases who received treatment in adult designated MH units in North Simcoe Muskoka LHIN hospitals. There were 2,973 discharges from these units with the total days of discharge patients equal to 106,464 days. The mean length of stay in North Simcoe Muskoka LHIN MH units was 35.8 days, the highest LOS in the province. Residents from outside the LHIN accounted for 25.1% of the active cases treated in North Simcoe Muskoka LHIN.
- Between 2013/14 and 2016/17, discharges and total days of discharged patients increased in North Simcoe Muskoka LHIN hospitals by 0.2% and 1.1%, respectively. Active cases and admissions decreased by 1.2% and 0.4%, respectively.
- Short stay (30.3%) and bipolar and depressive disorders (29.4%) accounted for the largest proportions of active cases in North Simcoe Muskoka LHIN hospitals in 2016/17. Compared with the provincial values, North Simcoe Muskoka had larger proportions of active cases for bipolar and depressive disorders and other disorders.
- There were 2,782 active cases, 2,549 admissions and 2,595 discharges for North Simcoe Muskoka LHIN residents from Ontario adult designated MH units. Mean length of stay for North Simcoe Muskoka LHIN residents was the second highest in the province at 33.4 days. 11.7% of North Simcoe Muskoka LHIN resident active cases received treatment in hospitals outside the LHIN. Compared with the provincial rates, North Simcoe Muskoka LHIN residents had higher rates of active cases, admissions, and discharges per 100,000 population age 15+.
  - By sub-region, **North Simcoe** had the highest, 5<sup>th</sup> highest and 8<sup>th</sup> mean length of stay (103.8 days), crude rate of active cases (912.3 per 100,000 population) and crude rate of discharge (740.5 per 100,000 population) among all 76 sub-regions.
- Active cases, admissions, discharges, total days and the associated rates decreased for North Simcoe Muskoka LHIN residents between 2013/14 and 2016/17.

### Adult designated mental health unit utilization, North Simcoe Muskoka LHIN hospitals and residents, 2016/17

Measure	North Simcoe Muskoka LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient</b>				
Active cases	2,782	64,523	-3.3%	
Admissions	2,549	60,197	-2.7%	
Discharges	2,595	60,607	-1.3%	
Total Days	86,726	1,504,690	4.0%	
Mean Length of Stay	33.4	24.8	-	2 <sup>nd</sup> highest
% Outflow Active Cases	11.7%	-	-	
Active Cases per 100,000 (age 15+)	672.3	548.5	-7.8%	
Admission per 100,000 (age 15+)	616.0	511.7	-7.3%	
Discharges per 100,000 (age 15+)	627.1	515.2	-5.9%	
<b>SCIPP Categories - % of total active cases</b>				
Short Stay	31.2%	27.4%	-	
Schizophrenia and other psychotic disorders	19.7%	27.0%	-	
Neurocognitive disorders	2.6%	3.1%	-	
Bipolar and depressive disorders	31.8%	29.6%	-	
Personality disorders	2.6%	3.0%	-	
Feeding and eating disorders	0.4%	0.4%	-	
Substance Use disorders	5.6%	5.5%	-	
Other disorders	6.1%	4.0%	-	
<b>LHIN of hospital</b>				
Active cases	3,278	64,738	-1.2%	
Admissions	2,950	60,383	-0.4%	
Discharges	2,973	60,795	0.2%	
Total Days (discharged patients only)	106,464	1,512,754	1.1%	
Mean Length of Stay	35.8	24.9	-	Highest
% Inflow Active Cases	25.1%	-	-	3 <sup>rd</sup> highest

‡Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

## Surgery & Diagnostic Imaging

### Day Surgery and Cardiac Catheterization Utilization

#### Day Surgery and Cardiac Catheterization Visits

- In 2016/17, there were 44,488 day surgery and ambulatory cardiac catheterization visits to North Simcoe Muskoka LHIN hospitals. Residents from outside the LHIN accounted for 11.8% of the visits.
- Between 2013/14 and 2016/17, there was an increase of 5.6% in North Simcoe Muskoka LHIN hospital's day surgery and cardiac catheterization visits.
- There were 54,211 day surgery and ambulatory cardiac catheterization visits for North Simcoe Muskoka LHIN residents. There was an increase in both the number and rate of visits between 2013/14 and 2016/17.
- In 2016/17, 27.6% of these visits occurred in hospitals outside the LHIN.
- North Simcoe Muskoka LHIN residents had 111.4 day surgery and cardiac catheterization visits per 1,000 population. This rate was higher than the provincial rate of 93.9.

#### Day surgery and ambulatory cardiac catheterization visits, North Simcoe Muskoka LHIN and Ontario, 2016/17

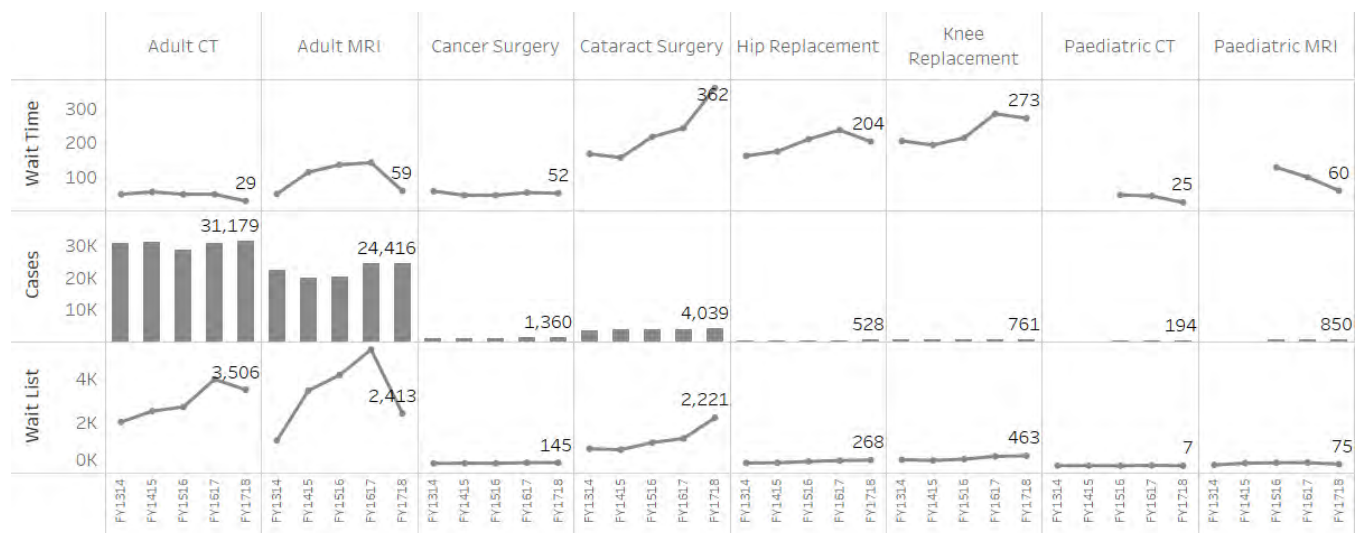
Measure	LHIN	Comments	Ontario†	LHIN % change 2013-14 - 2016/17	Range within LHINs	Range within North Simcoe Muskoka sub- regions
<b>LHIN of hospital</b>						
Visits	44,488		1,322,943	5.6%	27,727 - 158,077	
% Inflow visits	11.8%				0.7% - 58.4%	
<b>LHIN of patient</b>						
Total population	486,453		13,982,984	4.1%	235,148 - 1,893,948	
Visits	54,211		1,313,103	6.6%	28,401 - 157,644	7,331 - 20,923
% Outflow visits	27.6%				3.0% - 39.0%	20.4% - 34.9%
Visits per 1,000 population	111.4		93.9	2.3%	66.8 - 151.0	93.0 - 144.5
- age 0-17 years	28.9		22.2		13.9 - 38.4	
- age 18-44 years	59.1		46.5		34.8 - 85.5	
- age 45-64 years	141.5		125.3		93.9 - 183.0	
- age 65-79 years	246.4		239.9		176.5 - 318.4	
- age 80+ years	195.2		202.7		138.5 - 260.4	

†LHIN of patient results for Ontario exclude out-of-province residents

## Surgical & Diagnostic Imaging Wait Times

### North Simcoe Muskoka LHIN Priority Procedures: Wait 2 90th Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

#### LHIN of Treatment

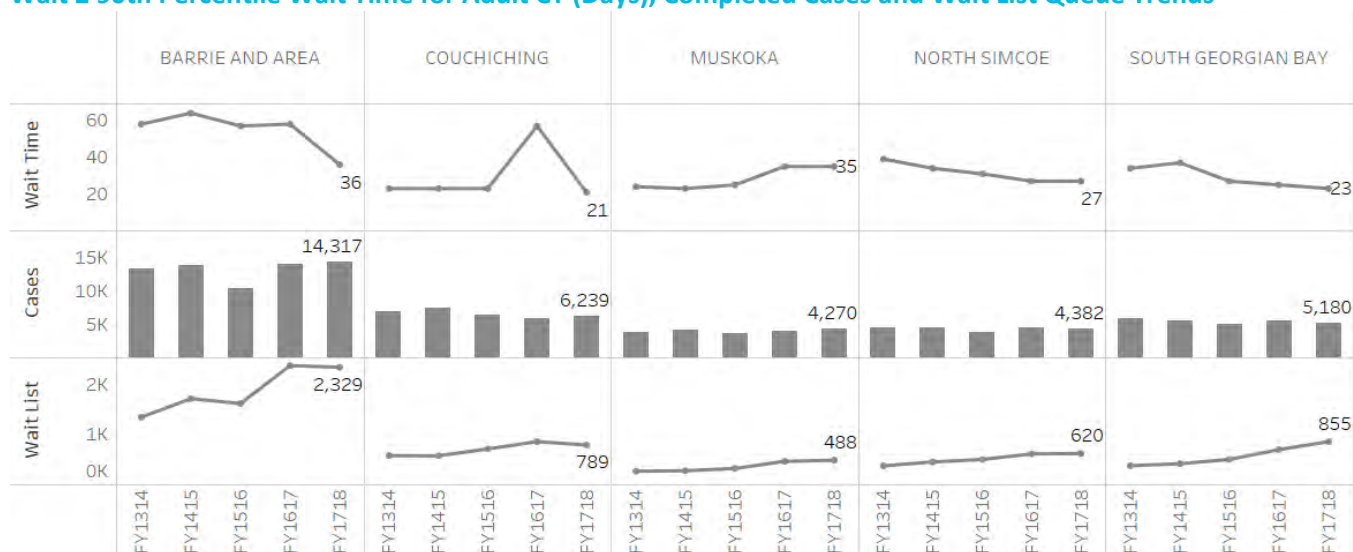


## Adult CT

- There were 31,179 adult CT scans completed in FY 2017-18; 670 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 29 days, 20 days shorter than the previous fiscal.
- In 2017/18, hospitals in the North Simcoe Muskoka LHIN had the 4<sup>th</sup> shortest wait time for adult CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 3,506 patients; 488 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Adult CT (Days), Completed Cases and Wait List Queue Trends



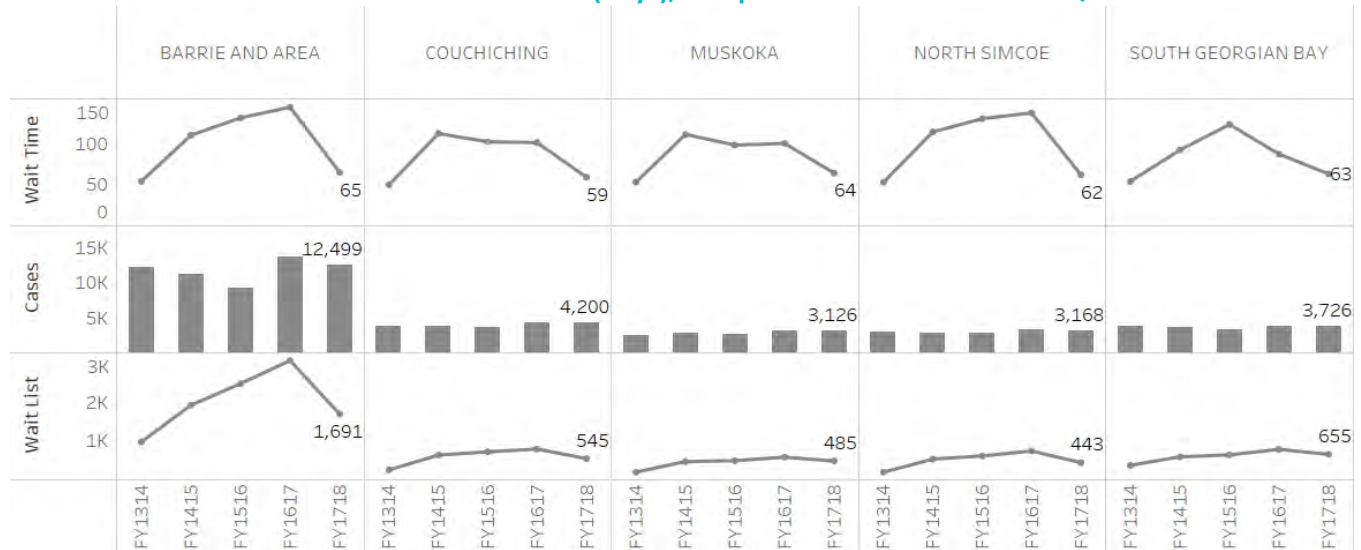
- North Simcoe Muskoka LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 21 days to 36 days.

## Adult MRI

- There were 24,416 adult MRI scans completed in FY 2017-18; 141 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 59 days, 83 days shorter than the previous fiscal.
- In 2017/18, hospitals in the North Simcoe Muskoka LHIN had the shortest wait time for adult MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 2,413 patients; 2,952 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Adult MRI (Days), Completed Cases and Wait List Queue Trends



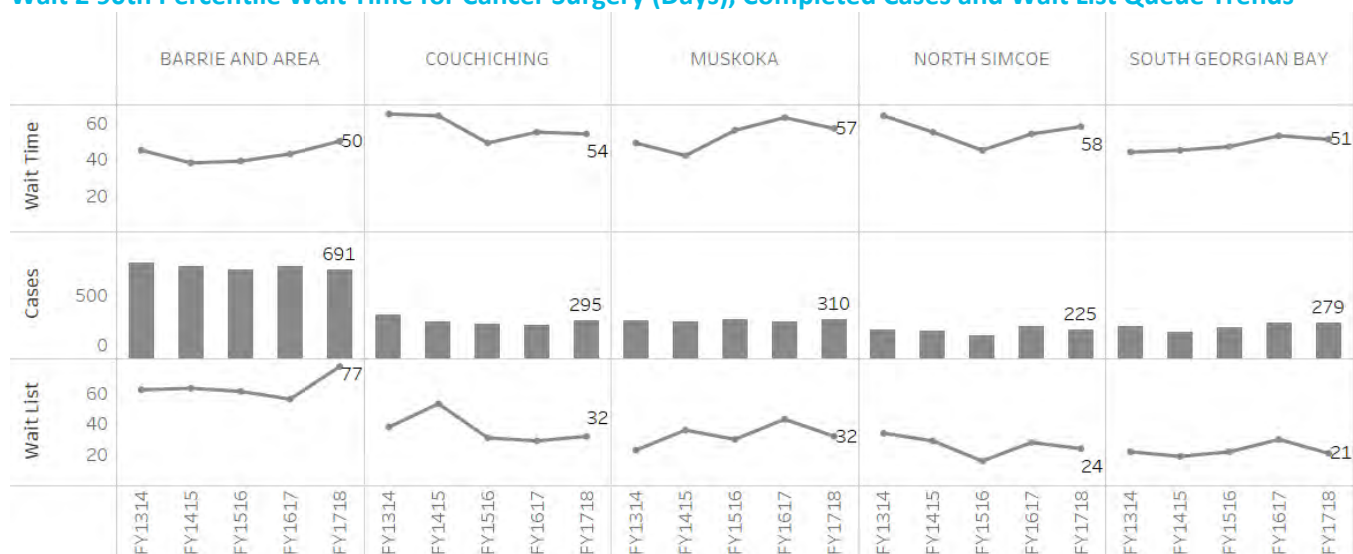
- North Simcoe Muskoka LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 59 days to 65 days.

## Cancer Surgery

- There were 1,360 cancer surgeries completed in FY 2017-18; 115 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 52 days, 2 days shorter than the previous fiscal.
- In 2017/18, hospitals in the North Simcoe Muskoka LHIN had the 8<sup>th</sup> shortest wait time for cancer surgery.
- The wait list queue at the start of FY 2017-18 was 145 patients; 1 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Cancer Surgery (Days), Completed Cases and Wait List Queue Trends



- North Simcoe Muskoka LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 50 days to 58 days.

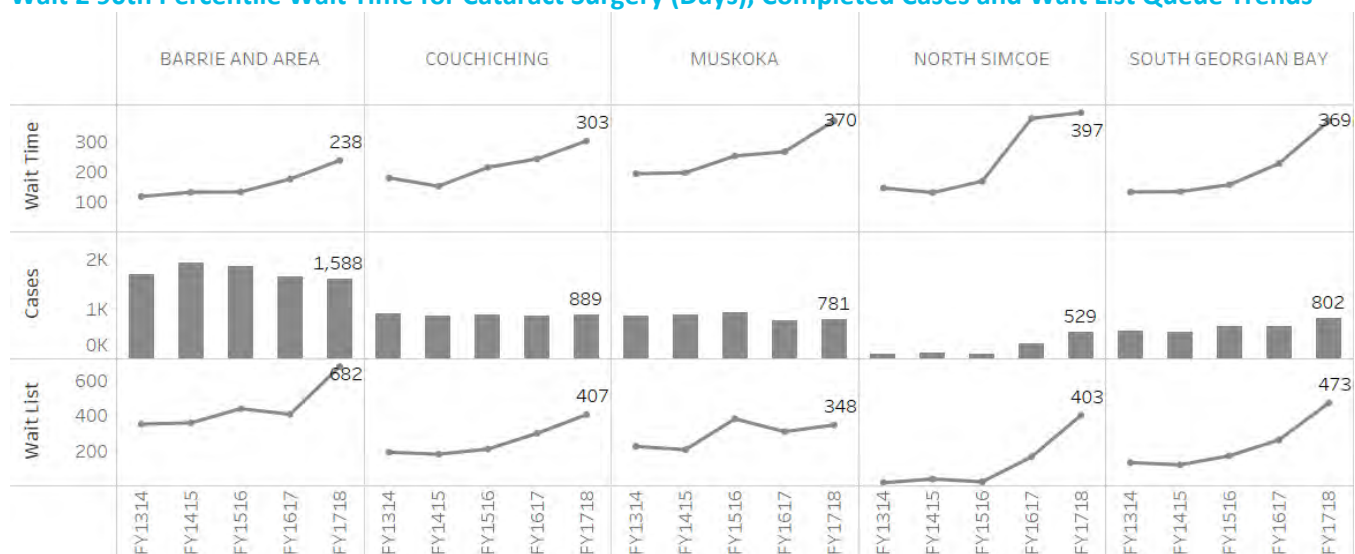


## Cataract Surgery

- There were 4,039 cataract surgeries completed in FY 2017-18; 305 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 362 days, 118 days longer than the previous fiscal.
- In 2017/18, hospitals in the North Simcoe Muskoka LHIN had the **longest** wait time for cataract surgery.
- The wait list queue at the start of FY 2017-18 was 2,221 patients; 962 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Cataract Surgery (Days), Completed Cases and Wait List Queue Trends



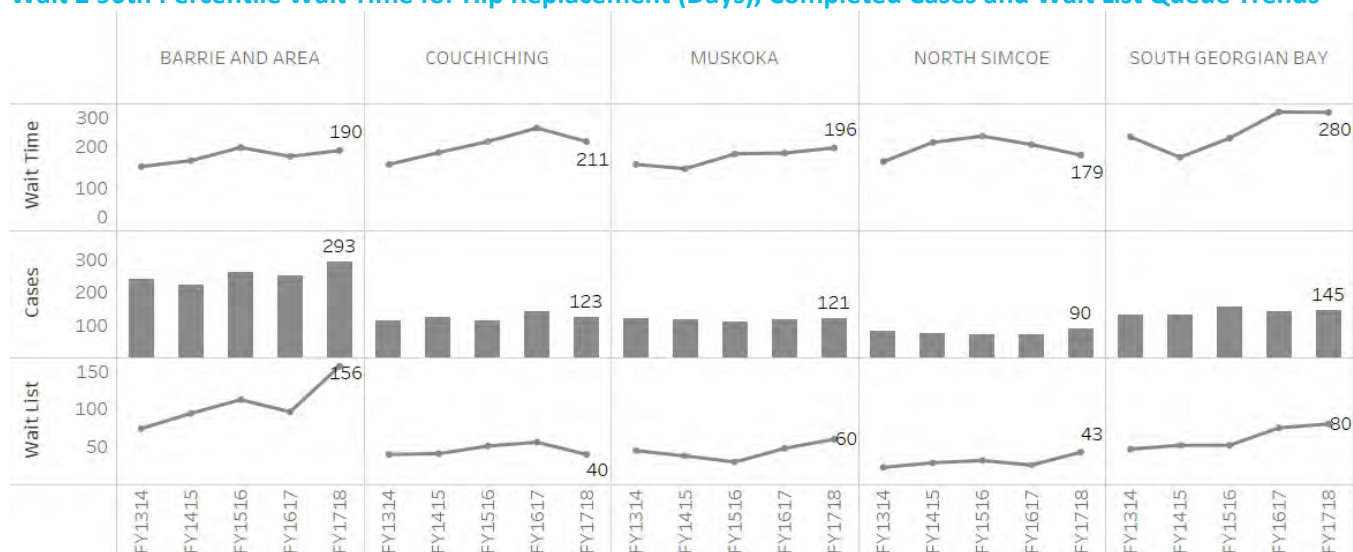
- North Simcoe Muskoka LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 238 days to 397 days.

## Hip Replacement

- There were 528 hip replacement surgeries completed in FY 2017-18; 25 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 204 days, 34 days shorter than the previous fiscal.
- In 2017/18, hospitals in the North Simcoe Muskoka LHIN had the 7<sup>th</sup> shortest wait time for hip replacement surgery.
- The wait list queue at the start of FY 2017-18 was 268 patients; 28 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Hip Replacement (Days), Completed Cases and Wait List Queue Trends



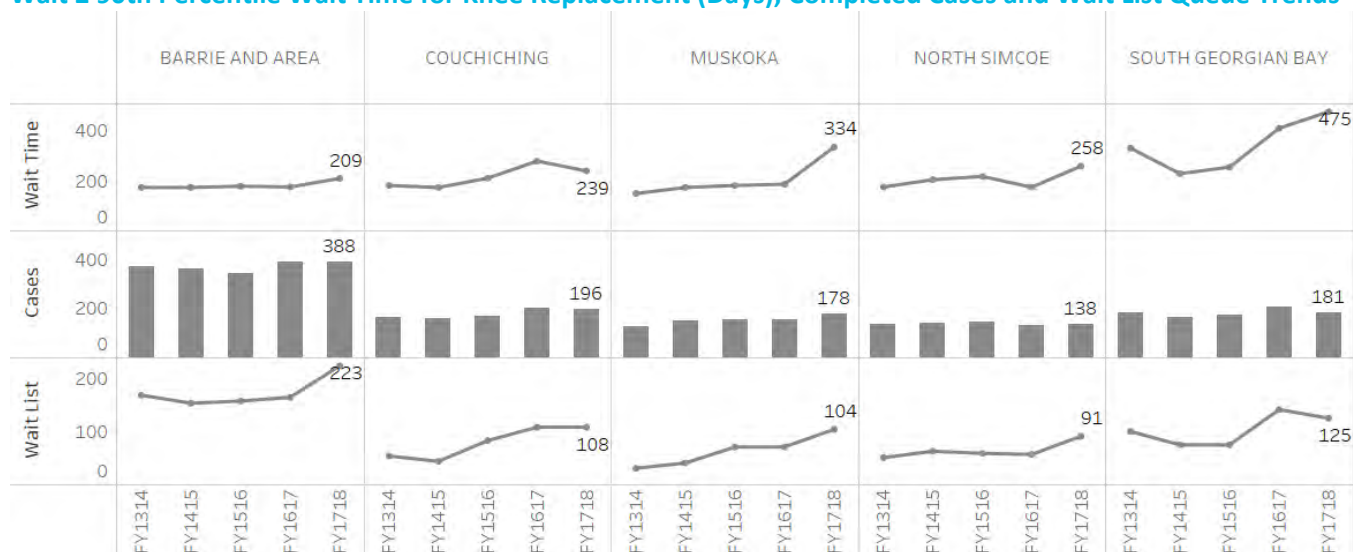
- North Simcoe Muskoka LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 179 days to 280 days.

## Knee Replacement

- There were 761 knee replacement surgeries completed in FY 2017-18; 10 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 273 days, 13 days shorter than the previous fiscal.
- In 2017/18, hospitals in the North Simcoe Muskoka LHIN had the 7<sup>th</sup> longest wait time for knee replacement surgery.
- The wait list queue at the start of FY 2017-18 was 463 patients; 26 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Knee Replacement (Days), Completed Cases and Wait List Queue Trends



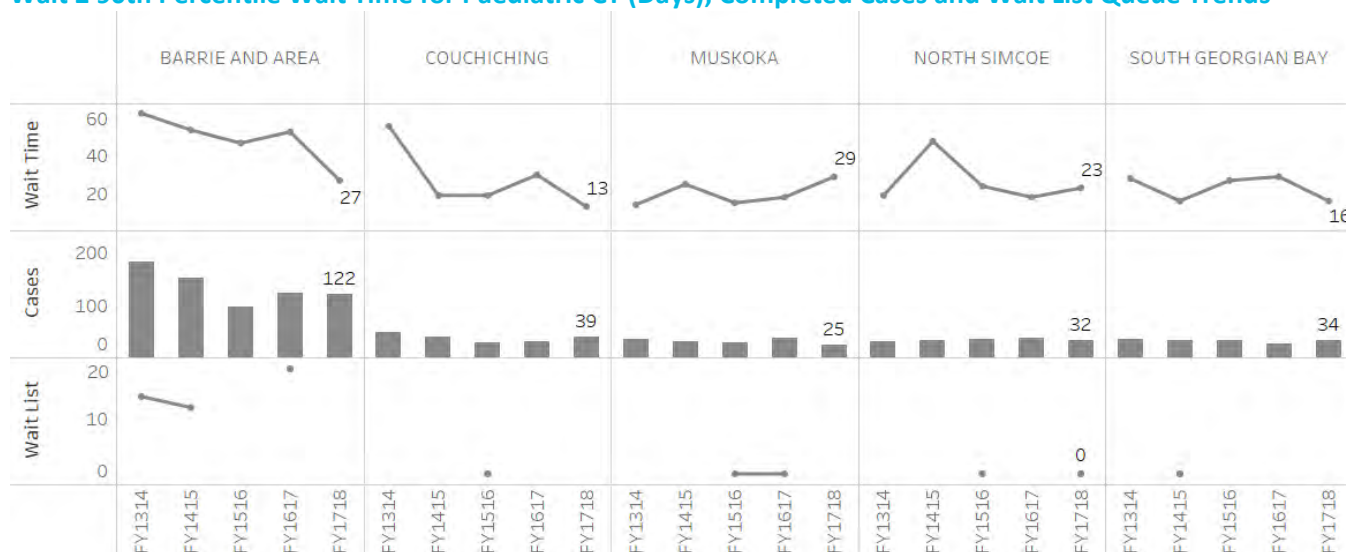
- North Simcoe Muskoka LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 209 days to 475 days.

## Paediatric CT

- There were 194 paediatric CT scans completed in FY 2017-18; 4 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 25 days, 19 days shorter than the previous fiscal.
- In 2017/18, hospitals in the North Simcoe Muskoka LHIN had the 4<sup>th</sup> shortest wait time for paediatric CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 7 patients; 10 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Paediatric CT (Days), Completed Cases and Wait List Queue Trends



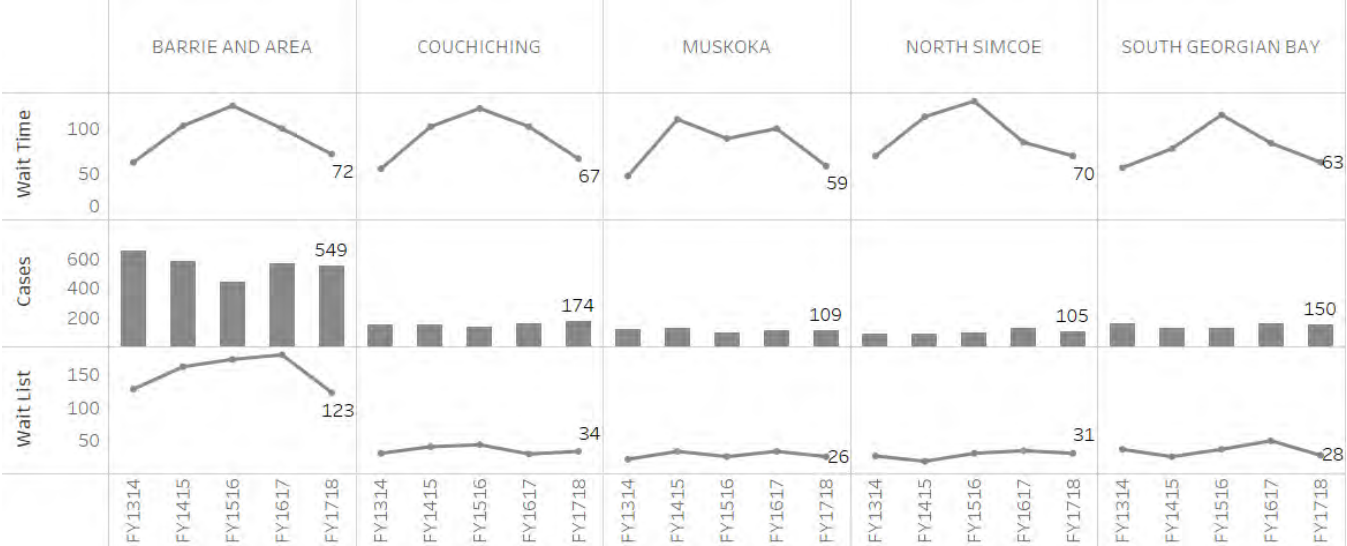
- North Simcoe Muskoka LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 13 days to 29 days.

# Paediatric MRI

- There were 850 paediatric MRI scans completed in FY 2017-18; 57 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 60 days, 39 days shorter than the previous fiscal.
- In 2017/18, hospitals in the North Simcoe Muskoka LHIN had the 2<sup>nd</sup> shortest wait time for paediatric MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 75 patients; 72 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Paediatric MRI (Days), Completed Cases and Wait List Queue Trends



- North Simcoe Muskoka LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 59 days to 72 days.

## Oncology and Dialysis

### Ambulatory Oncology Utilization

- In 2016/17, there were 34,514 ambulatory oncology visits to hospital(s) in North Simcoe Muskoka LHIN.
- Since 2014/15, visits in Ontario have increased by 9%. The number of visits to North Simcoe Muskoka LHIN hospitals increased by 20% and visits for North Simcoe Muskoka LHIN residents have increased by 7%.
- Ambulatory oncology visits per 1,000 population for residents of North Simcoe Muskoka LHIN is 78.6 (Ontario - 75.7).
- Oncology visits per 1,000 population for age group 18-44 years is among the 4 lowest visit rates in the province for this age group (North Simcoe Muskoka - 14.2 vs. Ontario - 15.9); age group 45-64 years also has among the 4 lowest visit rates (North Simcoe Muskoka – 97.1 vs. Ontario - 106.7).
  - 3 sub-regions in North Simcoe Muskoka LHIN have among the 8 highest visit rates in Ontario for age group 0-17 years - [South Georgian Bay](#) (7.5), [Muskoka](#) (8.8), and [North Simcoe](#) (10.1) while [Couchiching](#) (0.7) has the lowest visit rate in Ontario. (Ontario - 5.0)
- 22% of ambulatory oncology visits by North Simcoe Muskoka LHIN residents were to hospitals outside of North Simcoe Muskoka LHIN.
- 14% of ambulatory oncology visits to North Simcoe Muskoka LHIN hospitals were by non-North Simcoe Muskoka LHIN residents.

Ambulatory Oncology	North Simcoe Muskoka	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory oncology visits	34,514	1,059,358	3rd lowest	Increase	
% Inflow oncology visits	14.0%				
<b>LHIN of patient</b>					
Ambulatory oncology visits	38,258	1,057,888		Increase	4,607 -15,571
% Outflow oncology visits	22.4%				
Visits per 1,000 population	78.6	75.7		Increase	69.2 -94.6
Visit rate/1,000 population age 0-17 years	4.9	5.0			0.7 -10.1
Visit rate/1,000 population age 18-44 years	14.2	15.9	4th lowest		10.6 -16.5
Visit rate/1,000 population age 45-64 years	97.1	106.7	4th lowest		87.7 -101.8
Visit rate/1,000 population age 65-79 years	245.9	255.4			208.0 -282.0
Visit rate/1,000 population age 80+ years	187.3	191.6			156.6 -230.0

Ambulatory Oncology - Sub-Region	North Simcoe Muskoka	Barrie and Area	South Georgian Bay	Couchiching	Muskoka	North Simcoe
<b>LHIN of hospital</b>						
Ambulatory oncology visits	34,514					
% Inflow oncology visits	14.0%					
<b>LHIN of patient</b>						
Ambulatory oncology visits~	38,258	15,571	5,984	6,679	5,417	4,607
% Outflow oncology visits	22.4%	18.3%	25.3%	25.2%	26.3%	23.8%
Visits per 1,000 population	78.6	69.2	94.6	81.5	86.7	85.6
Visit rate/1,000 population age 0-17 years	4.9	3.9	7.5	0.7	8.8	10.1
Visit rate/1,000 population age 18-44 years	14.2	15.1	12.2	16.5	12.1	10.6
Visit rate/1,000 population age 45-64 years	97.1	101.8	87.7	93.2	95.6	98.4
Visit rate/1,000 population age 65-79 years	245.9	282.0	245.6	227.5	224.3	208.0
Visit rate/1,000 population age 80+ years	187.3	156.6	230.0	191.2	175.7	228.9

### Ambulatory Dialysis Utilization

- In 2016/17, there were 43,834 ambulatory dialysis visits to hospital(s) in North Simcoe Muskoka LHIN.
- Since 2014/15, visits in Ontario have increased by 3%. The number of visits to North Simcoe Muskoka LHIN hospitals increased by 7% and visits for North Simcoe Muskoka LHIN residents have increased by 5%.
- In 2016/17, the rate of ambulatory dialysis visits per 1,000 population for residents of North Simcoe Muskoka LHIN is 87.7 (Ontario - 90.4). Visit rate for age group 18-44 years is 25.7 (Ontario - 21.8) is among the 4 highest visit rates in the province while the visit rate for age group 65-79 years is 245.1 (Ontario - 285.3) is among the 4 lowest visit rates in the province.
- 5% of ambulatory dialysis visits by North Simcoe Muskoka LHIN residents were to hospitals outside of North Simcoe Muskoka LHIN.
- 8% of ambulatory dialysis visits to North Simcoe Muskoka LHIN hospitals were by non-North Simcoe Muskoka LHIN residents.

*Note: Ambulatory dialysis visit volumes for residents in age group 0-17 are low to none across all sub-regions. Caution should be used when interpreting visit rates in this age group.*

Ambulatory Dialysis	North Simcoe Muskoka	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory dialysis visits	43,834	1,269,794	2nd lowest	Increase	
% Inflow dialysis visits	7.6%				
<b>LHIN of patient</b>					
Ambulatory dialysis visits	42,681	1,264,676		Increase	4,289 -15,379
% Outflow dialysis visits	5.1%				
Visits per 1,000 population	87.7	90.4		Increase	68.4 -133.3
Visit rate/1,000 population age 0-17 years	0.1	1.2			0.0 -0.2
Visit rate/1,000 population age 18-44 years	25.7	21.8	4th highest		21.9 -33.0
Visit rate/1,000 population age 45-64 years	89.3	105.3			51.9 -132.6
Visit rate/1,000 population age 65-79 years	245.1	285.3	4th lowest		149.4 -394.4
Visit rate/1,000 population age 80+ years	367.7	426.7			281.3 -481.6



Ambulatory Dialysis - Sub-Region	North Simcoe Muskoka	Barrie and Area	South Georgian Bay	Couchiching	Muskoka	North Simcoe
<b>LHIN of hospital</b>						
Ambulatory dialysis visits	43,834					
% Inflow dialysis visits	7.6%					
<b>LHIN of patient</b>						
Ambulatory dialysis visits~	42,681	15,379	7,101	8,739	4,289	7,173
% Outflow dialysis visits	5.1%	11.7%	3.5%	0.2%	2.0%	0.4%
Visits per 1,000 population	87.7	68.4	112.3	106.7	68.6	133.3
Visit rate/1,000 population age 0-17 years	0.1	0.2	0.0	0.0	0.0	0.0
Visit rate/1,000 population age 18-44 years	25.7	25.1	22.4	28.2	21.9	33.0
Visit rate/1,000 population age 45-64 years	89.3	82.1	132.6	97.1	51.9	97.5
Visit rate/1,000 population age 65-79 years	245.1	253.5	184.3	266.5	149.4	394.4
Visit rate/1,000 population age 80+ years	367.7	281.3	481.6	455.1	294.0	434.7

\*Ranking: Top or bottom 4 ranking in the province, compared to other LHINs.

^ Trend: "Increase/decrease" when there is a change more than 1%, otherwise, "stable"

~ There are some records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables with the LHIN name but as SR unassigned.

## Home Care

### Home Care Patient Referrals

- In 2017/18, there were 24,689 active home care patient referrals in the North Simcoe Muskoka LHIN, which was the second lowest in Ontario.
  - The [Barrie and Area](#) sub-region had the largest proportion of North Simcoe Muskoka LHIN patient referrals at 9,218.

### Active Patient Referrals 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
<b>Barrie and Area</b>	8,651	8,914	9,218	
<b>Couchiching</b>	3,905	4,162	4,427	
<b>Muskoka</b>	3,240	3,467	3,592	
<b>North Simcoe</b>	2,640	2,759	2,952	
<b>South Georgian Bay</b>	3,103	3,214	3,433	
<b>Out of LHIN Region</b>	516	617	703	
<b>Unknown Region</b>	945	711	364	
<b>North Simcoe Muskoka Total</b>	23,000	23,844	24,689	

\*Rank based on 2017/18 active patient referrals

### Home Care Referral Rate

- In 2017/18, North Simcoe Muskoka LHIN's utilization rate was higher than Ontario's (50.0 compared to 48.2).
  - Within the LHIN, the utilization rate ranged from 41.0 referrals per 1,000 in [Barrie and Area](#) to 57.5 in [Muskoka](#).

### Referrals (per 1,000 population) 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
<b>Barrie and Area</b>	39.0	39.6	41.0	
<b>Couchiching</b>	48.6	50.8	54.1	
<b>Muskoka</b>	51.6	55.5	57.5	
<b>North Simcoe</b>	50.1	51.3	54.8	
<b>South Georgian Bay</b>	50.1	50.8	54.3	
<b>North Simcoe Muskoka Total</b>	48.0	49.0	50.0	

\*Rank based on 2017/18 utilization rates

### Home Care Services

- In North Simcoe Muskoka LHIN, there were 423,517 home care visits and 1,147,682 service hours in 2017/18.
- The rate of home care visits was 857.2 per 1,000 population and the rate of service hours was 2,322.8 per 1,000 population.
- North Simcoe Muskoka had the 2<sup>nd</sup> lowest physiotherapy visits per 1,000 population, and 2<sup>nd</sup> lowest speech language pathology visits per 1,000 population.
- The following sub-regions had among the eight highest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - [South Georgian Bay](#) had the 7<sup>th</sup> highest rate of personal support hours.
  - [Muskoka](#) had the 6<sup>th</sup> highest rate of nursing visits.
- The following sub-regions had among the eight lowest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - [Barrie and Area](#) had the 8<sup>th</sup> lowest rate of physiotherapy visits.
  - [Couchiching](#) had the 5<sup>th</sup> lowest rate of speech language therapy visits.
  - [Muskoka](#) had the 2<sup>nd</sup> lowest rate of nursing shift hours.
  - [Muskoka](#) had the 7<sup>th</sup> lowest rate of speech language therapy visits.
- Between 2014/15 and 2017/18 there was an increase in total visits of 13.8% and a decrease in total hours of 2.4% in North Simcoe Muskoka LHIN. During this period nursing visits increased by 18.9% and nursing shift hours increased by 43.1%.
- Between 2014/15 and 2017/18 nursing visits rate increased by 13.9% and nursing shift hours rate increased by 37.2%.

## Summary of Home Care Service by Type, North Simcoe Muskoka LHIN, 2017/18

	North Simcoe Muskoka LHIN Residents	Ontario Residents*		LHIN % Change 2014/15 to 2017/18	Range across North Simcoe Muskoka sub-regions**
<b>Service Visits</b>					
<b>All Visits†</b>	423,517	11,528,751	2 <sup>nd</sup> lowest	13.8%	56,588-158,271
Nursing Visit	305,621	7,539,458	2 <sup>nd</sup> lowest	18.9%	41,753-112,292
Physiotherapy	15,068	738,685	2 <sup>nd</sup> lowest	0.4%	1,550-6,298
Occupational Therapy	15,760	615,215	2 <sup>nd</sup> lowest	-5.2%	1,603-6,205
Social Work	1,868	56,973		-16.9%	192-735
Nutrition and Dietetic	1,884	47,949		-25.4%	248-797
Speech Language Pathology	6,828	273,735	Lowest	2.7%	704-3,391
Case Management	66,462	2,211,107	2 <sup>nd</sup> lowest	-3.5%	8,518-24,990
<b>Service Hours</b>					
<b>All Hours</b>	1,147,682	34,396,919	2 <sup>nd</sup> lowest	-2.4%	137,033-484,117
Nursing Shift	75,784	2,366,020		43.1%	1,066-49,361
Personal Support Work and Homemaking	1,069,976	31,319,568	2 <sup>nd</sup> lowest	-4.7%	132,612-433,738
Respite	1,922	711,331	Lowest	n/a	69-1,018
<b>Service Visits per 1,000 population</b>					
<b>All Visits per 1,000 population †</b>	857.2	810.2		9.1%	703.4-1,105.9
Nursing Visit	618.5	529.8		13.9%	499.1-807.8
Physiotherapy	30.5	51.9	2 <sup>nd</sup> lowest	-3.8%	28.0-36.2
Occupational Therapy	31.9	43.2		-9.2%	27.6-47.7
Social Work	3.8	4.0		-20.4%	3.3-4.9
Nutrition and Dietetic	3.8	3.4		-28.5%	3.5-4.6
Speech Language Pathology	13.8	19.2	2 <sup>nd</sup> lowest	-1.6%	10.4-17.6
Case Management	134.5	155.4		-7.5%	111.1-170.9
<b>Service Hours per 1,000 population</b>					
<b>All Hours</b>	2,322.8	2,417.3		-6.4%	2,151.7-3,071.3
Nursing Shift	153.4	166.3		37.2%	17.1-219.4
Personal Support Work and Homemaking	2,165.5	2,201.0		-8.7%	1,927.8-2,952.4
Respite	3.9	50.0		n/a	1.1-6.4

\*Not all LHINs offer the same services or report case management services in the same manner.

\*\*Service rates per 1,000 population are calculated using 2017/18 service levels divided by 2016 population estimates from the Ministry of Finance. Typically 2017 population estimates would be used but they were not available at the sub-region level at time of calculation.

†Includes visits for respiratory, psychology, and 'other' service types (not shown), which are not consistently reported/available in all LHINs.

n/a – not applicable due to significant changes in funding and recording

## Palliative Care

### Services Received at Home by Palliative Patients FY 2016/2017

	Provincial Ranking	LHIN	Range Across North Simcoe Muskoka sub-regions
Percent of patients who received palliative home visits(home servicers or physician) in the last 90 days of life	14	44%	35% to 55%
Percent of patients who received palliative home servicers in the last 90 days of life	13	32%	27% to 39%
Percent of patients who had physician home visits in the last 90 days of life	13	35%	25% to 46%
Percent of patients who receive palliative home services who died in hospital	2	19%	12% to 28%
Percent of palliative care patients discharged home from hospital with the discharge status "Home with Support"	14	92%	86% to 96%
Mean days spent at home/residence in last 6 months of life	14	165 days	161 to 167 days

*†Ranking in the province, compared to other LHINs.*

### Interpretation

- In 2016/2017, 44% of patients in North Simcoe Muskoka LHIN received palliative home visits in the last 90 days of life, which is the highest in the province by almost 10%.
  - Within the North Simcoe Muskoka LHIN, all sub-regions report percentages receiving home visits in the last 90 days of life that are greater than the provincial percentage: [North Simcoe](#) sub-region reports the lowest percentage at 35% and [South Georgian Bay](#) reports the highest percentage at 55%, one of the highest percentages in the province.
- In 2016/2017, the percent of patients in North Simcoe Muskoka LHIN who received palliative home servicer visits in the last 90 days of life was second highest in the province (32% vs 25%, respectively).
  - [North Simcoe](#) sub-region reported 27% patients received home servicer visits in the last 90 days of life, which was the lowest percentage in the North Simcoe Muskoka LHIN though still higher than the provincial percentage. [South Georgian Bay](#) sub-region reports the highest percentage among the sub-regions at 39.
- In the North Simcoe Muskoka LHIN, the percentage of patients who received physician home visits in the last 90 days of life was 35%, which is 7% higher than the provincial value.
  - [South Georgian Bay](#) sub-region reported the highest percentage at 46%, which also has a high mean annual growth of 9.4%. [North Simcoe](#) sub-region reported the lowest percentage of palliative patients with physician home visits in the last 90 days of life at 25%.
- Across Ontario, North Simcoe Muskoka LHIN reported that 19% of patients who received palliative home services who died in hospital, which is second among the 14 LHINs.
- There is dramatic variation of percentages of patients who received palliative care who died in hospital across North Simcoe Muskoka sub-regions.

- The [South Georgian Bay](#) sub-region has the lowest percentage of palliative patients dying in hospital at 12%, one of the lowest percentages in the province. On the other hand, [North Simcoe](#) reports 28% of patients who received palliative care died in hospital. [Couchiching](#) and [Muskoka](#) sub-regions on the other hand reported increases in percentages of palliative patients dying in hospital (3.1% and 2.6% respectively).
- Across LHINs, North Simcoe Muskoka reports that 92% of palliative care patients discharged home with “Home with Supports” status in 2016/2017, substantially higher than the provincial 85%.
  - Within North Simcoe Muskoka, the sub-regions vary from 86% in [Muskoka](#) sub-region to 96% in [Couchiching](#) sub-region regarding palliative patients discharged with “Home with Supports” status, which is one of the highest percentages in the province.
- North Simcoe Muskoka LHIN’s mean number of days at home among palliative patients in the last 6 months across all LHINs was 165 days, which is the highest across all LHINs and 5 days higher than the provincial value.
  - North Simcoe Muskoka sub-regions vary in mean number of days that palliative patients spend at home in their last 6 months, ranging from 161 days in the [North Simcoe](#) sub-region to 167 days in the [Muskoka](#) sub-region.

#### **Palliative Hospital System Measures, North Simcoe Muskoka (FY 2016/17)**

	<b>Provincial Ranking</b>	<b>LHIN</b>	<b>Range Across the sub-regions</b>
Percent of patients who had one or more unplanned ED visits in the last 30 days of life	6	54%	53% - 56%
Percent of patients who had two or more unplanned ED visits in the last 30 days of life	5	15%	13% - 17%
Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days	7	21%	18% - 26%
Percent of people who die in hospital (all hospital settings and acute only)	1	42%	33% - 55%
Percent of people who die in acute hospital	2	39%	33% - 45%
Percent of patients who had two or more acute inpatient admissions in the last 30 days of life	7	5%	4% - 7%

### LHIN Comparison

- North Simcoe Muskoka LHIN was **significantly lower** than the province in percent of people who died in hospital (all hospital settings and acute only) and percent of people who died in acute hospital.
  - For percent of people who died in hospital (all hospital settings and acute only), the following sub-regions were **significantly lower** than the province: [Barrie and Area](#), [South Georgian Bay](#), [Couchiching](#), and [Muskoka](#).
  - For percent of people who died in acute hospital, [Muskoka](#) sub-region was **significantly lower** than the province.

### Change Over Time

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of -1% was observed across the North Simcoe Muskoka LHIN ranking 13th provincially.
  - Across sub-regions, [Barrie and Area](#) (0%) and [South Georgian Bay](#) (-3%) were observed highest and lowest, respectively.
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of -3% was observed across the North Simcoe Muskoka LHIN ranking 14th provincially.
  - Across sub-regions, [North Simcoe](#) (2%) and [Couchiching](#) (-7%) were observed highest and lowest, respectively.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, a mean annual growth rate of -3% was observed across the North Simcoe Muskoka LHIN ranking 13th provincially.
  - Across sub-regions, [Couchiching](#) (15%) and [Barrie and Area](#) (-9%) were observed highest and lowest, respectively.
- For percent of people who die in hospital (all hospital settings and acute only), a mean annual growth rate of -4% was observed across the North Simcoe Muskoka LHIN ranking 14th provincially.
  - Across sub-regions, [North Simcoe](#) (-2%) and [South Georgian Bay](#) (-11%) were observed highest and lowest, respectively.
- For percent of people who die in acute hospital, a mean annual growth rate of -3% was observed across the North Simcoe Muskoka LHIN ranking 13th provincially.
  - Across sub-regions, [North Simcoe](#) (0%) and [South Georgian Bay](#) (-11%) were observed highest and lowest, respectively.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, a mean annual growth rate of 0% was observed across the North Simcoe Muskoka LHIN ranking 7th provincially.
  - Across sub-regions, [Muskoka](#) (10%) and [Barrie and Area](#) (-3%) were observed highest and lowest, respectively.

## Emergency Department

### Emergency Department Utilization

- In 2016/17, there were 259,420 ED visits to North Simcoe Muskoka LHIN hospitals, an increase of 2.3% from 2013/14. In the same time-period, the number of ED visits in the province increased by 6.5%.
- North Simcoe Muskoka's crude ED visit rate of 525.9 ED visits per 1,000 population was 5th highest in the province, above the provincial rate (442.2). This represented a 0.3% decrease in crude visit rate in the LHIN from 2013/14 during which time the provincial crude visit rate climbed by 3.0%.
- Age adjusted ED visit rates per 1,000 population were highest for seniors 80+ at 982 visits per 1,000 population, following by seniors aged 65-79 (549 visits / 1,000 population), adults aged 18-44 years (544 visits per 1,000 population), children aged 0-17 (501 visits per 1,000 population) while adults aged 45-64 years had the lowest usage rate in LHIN at 437 visits per 1,000 population, or less than half of the highest user age group.
  - [Barrie and Area](#) residents had the lowest ED visit rate of North Simcoe Muskoka's 5 sub-regions, at 423 visits per 1000 population.
  - [North Simcoe](#) sub-region had the highest crude ED visit rate in the LHIN at 779 visits per 1,000 population.
  - Overall, 1 of North Simcoe Muskoka's 5 sub-regions had crude ED visit rates below the provincial value, while 4 had rates above the provincial value.
- Between 2013/14 and 2016/17 the number of North Simcoe Muskoka LHIN residents visiting the ED with lower acuity levels (CTAS IV and V) decreased 3.9% to 100,416 visits. During this same time-period, visits by Ontario residents with CTAS IV and V declined 2.2%.
- Between 2013/14 and 2016/17 the number of visits with CTAS III increased by 6.8% and CTAS I & II increased by 17.0%, while provincially these numbers increased by 9.4% and 15.8% respectively.
- Overall, North Simcoe Muskoka LHIN ranked 4th highest in the province in proportion of ED visits by residents that were lower acuity (39.3% for North Simcoe Muskoka, and 33.5% for the province).
  - All of North Simcoe Muskoka's sub-regions had a higher proportion of ED visits with lower acuity (CTAS IV and V) than the province.
  - [Barrie and Area](#) had the lowest proportion of ED visits with lower acuity of the LHIN's 5 sub-regions, at 34.2%, while [Couchiching](#) had the highest at 46.4%.
- The most common causes for ED visits by North Simcoe Muskoka LHIN residents were diseases or disorders of the digestive system, diseases or disorders of the ear, nose or throat, and diseases or disorders of the skin & breast and accounted for 9.3%, 9.0%, and 8.1% of ED visits by North Simcoe Muskoka LHIN residents respectively.
- Follow-up examinations and other non-emergent conditions ranked 6<sup>th</sup> as a cause of ED visits and accounted for 5.7% of ED visits by North Simcoe Muskoka LHIN residents.
- 14.6% of the patients who visited ED in North Simcoe Muskoka LHIN hospitals arrived via ambulance in FY16/17, as compared to 15.6% for the province.
  - The proportion of ED visits that arrived by ambulance ranged from a low of 12.0% in [Muskoka](#) sub-region to a high of 16.4% in [Barrie and Area](#).
- 9.2% of the patients who visited ED in North Simcoe Muskoka LHIN hospitals were admitted in FY16/17, as compared to 9.8% for the province.
  - The proportion of ED visits that resulted in a patient being admitted to hospital ranged from a low of 8.4% in [North Simcoe](#) sub-region to a high of 10.3% in [Barrie and Area](#).



- 4.0% of the patients who visited ED in North Simcoe Muskoka LHIN hospitals left without completing treatment in FY16/17, as compared to 3.9% for the province. North Simcoe Muskoka ranked 7th in the province in visits that left without completing treatment.
- 13.1% of ED visits to North Simcoe Muskoka LHIN hospitals were by patients who did not reside in North Simcoe Muskoka LHIN (inflow). This compares to 11.8% of ED visits by North Simcoe Muskoka LHIN residents that were accessed in other LHINs (outflow).

#### Top 10 Reasons for Emergency Department Visits by LHIN, 2016/17

Leading CACS groups, by LHIN of patient	North Simcoe Muskoka	
	#	% of total visits
(B128) Disease or Disorder Digestive System	23,866	9.3%
(B112) Disease or Disorder Ear, Nose or Throat	22,956	9.0%
(B132) Disease or Disorder Skin & Breast	20,689	8.1%
(B136) Disease or Disorder Musculoskeletal and Connective Tissue	16,213	6.3%
(B180) Contusion, Dislocation, Nerve & Other Soft Tissue Injury	14,644	5.7%
(B187) Follow-up Examination and Other Non Emergent Condition	14,543	5.7%
(B122) Other Disease or Disorder Cardiac System	13,448	5.3%
(B116) Disease or Disorder Respiratory System	13,272	5.2%
(B005) Other Condition with Acute Admission/Transfer	11,007	4.3%
(B188) Open Wound and Vascular Injury	10,712	4.2%

Measure—LHIN of Hospital	North Simcoe Muskoka		Ontario	
	#	LHIN % change 2013/14-2016/17	#	Ontario % change 2013/14-2016/17
Visits	259,420	2.3%	6,312,121	6.5%
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	48,208	17.1%	1,284,741	15.9%
III (urgent)	107,339	5.0%	2,876,687	9.6%
IV & V (less urgent/non urgent)	103,821	-5.7%	2,128,914	-2.0%
<b>% visits by CTAS level†</b>				
I & II (resuscitation/emergent)	18.6%		20.4%	
III (urgent)	41.4%		45.6%	
IV & V (less urgent/non urgent)	40.0%		33.7%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	14.6%		15.6%	
% of visits that were admitted	9.2%		9.8%	
% of visits that left without completing treatment	4.0%		3.9%	
<b>% Inflow visits</b>	13.1%			

Measure—LHIN of Patient	North Simcoe Muskoka		Ontario	
	#	LHIN % change 2013/14- 2016/17	#	Ontario % change 2013/14- 2016/17
Visits	255,804	4.0%	6,183,151	6.4%
ED visit rate/1,000 population	525.9	-0.3%	442.2	3.0%
<b>Age-specific ED visit rates per 1,000 population</b>				
ED visit rate, age 0-17 years	501		429	
ED visit rate, age 18-44 years	544		411	
ED visit rate, age 45-64 years	437		388	
ED visit rate, age 65-79 years	549		516	
ED visit rate, age 80+ years	982		913	
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	48,057	17.0%	1,265,237	15.8%
III (urgent)	107,248	6.8%	2,825,385	9.4%
IV & V (less urgent/non urgent)	100,416	-3.9%	2,070,962	-2.2%
<b>% visits by CTAS level</b>				
I & II (resuscitation/emergent)	18.8%		20.5%	
III (urgent)	41.9%		45.7%	
IV & V (less urgent/non urgent)	39.3%		33.5%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	14.4%		15.8%	
% of visits that were admitted	9.5%		9.9%	
% of visits that left without completing treatment	3.8%		3.8%	
% Outflow visits	11.8%			

# ED Visit Utilization Summary, by sub-region of Patient Residence, 2016/17 North Simcoe Muskoka LHIN

	Barrie and Area	South Georgian Bay	Couchiching	Muskoka	North Simcoe	LHIN	Ontario
<b>Sub-Region of Patient Residence</b>							
Visits	95,198	35,976	46,353	36,329	41,948	255,804	6,183,151
ED visit rate/1,000 population	423	569	566	581	779	525.9	442
% Outflow to other LHINs	20.7%	12.1%	4.7%	7.5%	3.1%	11.8%	
<b>Age-specific ED visit rates per 1,000 population</b>							
ED visit rate, age 0-17 years	376	600	562	610	865	501	429
ED visit rate, age 18-44 years	434	603	641	607	857	544	411
ED visit rate, age 45-64 years	367	454	447	458	621	437	388
ED visit rate, age 65-79 years	479	530	548	573	725	549	516
ED visit rate, age 80+ years	851	1070	922	1025	1261	982	913
<b># visits by CTAS level</b>							
# CTAS Level I & II visits	21091	5739	7614	5189	8424	48,057	12715
# CTAS Level III visits	41491	15703	17227	15829	16998	107,248	20741
# CTAS Level IV & V visits	32602	14522	21505	15269	16518	100,416	13353
<b>% visits by CTAS level</b>							
I & II (resuscitation/emergent)	22.2%	16.0%	16.4%	14.3%	20.1%	18.8%	20.5%
III (urgent)	43.6%	43.6%	37.2%	43.6%	40.5%	41.9%	45.7%
IV & V (less urgent/non urgent)	34.2%	40.4%	46.4%	42.0%	39.4%	39.3%	33.5%
<b>Other visit characteristics</b>							
% of visits that arrived by ambulance	16.4%	14.7%	13.4%	12.0%	12.5%	14.4%	15.8%
% of visits that were admitted	10.3%	9.4%	8.9%	9.3%	8.4%	9.5%	9.9%
% of visits that left without completing treatment	4.8%	2.5%	3.6%	4.0%	2.6%	3.8%	3.8%

## Emergency Department Performance

- Emergency department (ED) volumes increased steadily from fiscal year 2013/14 (253,527 visits) to 2017/18 (267,783 visits), with North Simcoe Muskoka LHIN sites ranging from 21,874 to 85,379 in fiscal year 2017/18.
- Overall, the 90<sup>th</sup> percentile ambulance offload time in fiscal year 2017/18 (33 mins) decreased since fiscal year 2013/14 (34 mins), with a range of five to 51 minutes across North Simcoe Muskoka LHIN sites in fiscal year 2017/18.
- The 90<sup>th</sup> percentile time to physician initial assessment (PIA) had remained consistent over time (three hours) from fiscal year 2013/14 to 2017/18, with the percent within the two hour target for PIA decreasing from fiscal year 2013/14 (83%) to 2017/18 (73%). North Simcoe Muskoka LHIN sites ranged from two to four hours for the 90<sup>th</sup> percentile time to PIA and 57% to 90% for percent of time to PIA within two hours in fiscal year 2017/18.
- The 90<sup>th</sup> percentile consult request to arrival time remained stable (2 hours) from fiscal year 2013/14 to fiscal year 2017/18, with North Simcoe Muskoka LHIN sites having a range of one to three hours in fiscal year 2017/18. The percentage of consults within two hours from request was 91% in both fiscal years 2013/14 and 2017/18, with North Simcoe Muskoka LHIN sites ranging from 85% to 97%.
- The 90<sup>th</sup> percentile time to disposition increased slightly from fiscal year 2013/14 (six hours) to 2017/18 (seven hours), with North Simcoe Muskoka LHIN sites ranging from five to eight hours in fiscal year 2017/18.
- The 90<sup>th</sup> percentile ED length of stay increased slightly from fiscal year 2013/14 (seven hours) to 2017/18 (eight hours), with North Simcoe Muskoka LHIN sites ranging from six to 12 hours in fiscal year 2017/18.
- Non-admitted low acuity ED volumes decreased steadily from fiscal year 2013/14 (108,849) to 2017/18 (101,452), with North Simcoe Muskoka LHIN sites ranging from 8,894 to 25,097 in fiscal year 2017/18.
- For non-admitted low acuity visits, the ED length of stay and time to disposition both remained stable (four hours for both across all fiscal years) between fiscal years 2013/14 and 2017/18, with North Simcoe Muskoka LHIN sites having a range of three to six hours for both measures in fiscal year 2017/18.
- The percent of non-admitted low acuity visits within target of four hours decreased over time, from 93% in fiscal year 2013/14 to 87% in 2017/18. In fiscal year 2017/18, North Simcoe Muskoka LHIN sites ranged from 74%-94%.
- The volumes of non-admitted high acuity ED visits increased from fiscal year 2013/14 (121,965) to 2017/18 (140,770), with North Simcoe Muskoka LHIN sites ranging from 11,173 visits to 51,084 visits in fiscal year 2017/18.
- For non-admitted high acuity visits, the 90<sup>th</sup> percentile time to disposition remained the same (seven hours), the ED length of stay increased from six to seven hours and percentage within target of eight hours decreased from 96% to 94% from fiscal year 2013/14 to 2017/18. In fiscal year 2017/18, North Simcoe Muskoka LHIN sites ranged from five to eight hours for both 90<sup>th</sup> percentile time to disposition and length of stay, and from 89% to 98% for percent with target of eight hours for non-admitted high acuity visits.
- The volumes of ED admissions had also increased steadily over time from fiscal year 2013/14 (22,693) to 2017/18 (25,520), with North Simcoe Muskoka LHIN sites ranging from 1,781 to 10,402 ED admissions in fiscal years 2017/18. Across all years, the admission rates increased with acuity across all CTAS levels.
- For ED admissions, the 90<sup>th</sup> percentile time to disposition increased from nine hours to 11 hours, from fiscal year 2013/14 to 2017/18, while North Simcoe Muskoka LHIN sites ranged from seven to 13 hours in fiscal year 2017/18.
- The 90<sup>th</sup> percentile time to inpatient bed and the 90<sup>th</sup> percentile ED length of stay for admitted ED visits both increased from fiscal year 2013/14 to 2017/18; the time to inpatient bed from 20 to 23 hours, with North Simcoe Muskoka LHIN sites ranging from five to 35 hours in fiscal year 2017/18, and the ED length of stay from 25 to 39 hours, with North Simcoe Muskoka LHIN sites ranging from 13 to 42 hours in fiscal year 2017/18. The percentage of ED admissions within target of eight hours decreased from fiscal year 2013/14

(49%) to 2017/18 (39%), with North Simcoe Muskoka LHIN sites ranging from 23% to 72% in fiscal year 2017/18.

### Emergency department visits, North Simcoe Muskoka (NSM) LHIN

Measure	Fiscal Year					Range across sites, FY 17/18
	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	
All emergency department visits						
ED Volumes (All)	253,527	260,553	263,093	259,421	267,783	21,874 - 85,379
Ambulance Offload Time - 90th Percentile (mins)	34	37	37	30	33	5 - 51
Time to PIA - 90th percentile	3	3	3	3	3	2 - 4
% with Time to PIA <= 2 Hours	83%	78%	73%	75%	73%	57% - 90%
Consult Request to Arrival - 90th Percentile	2	2	2	2	2	1 - 3
% of Consults with Consult Request to Arrival <= 2 Hrs	91%	93%	93%	92%	91%	85% - 97%
Time to Disposition (All) - 90th Percentile	6	6	6	6	7	5 - 8
ED LOS - 90th Percentile	7	7	7	7	8	6 - 12
Non-admitted low acuity ED visits						
ED Volumes - Non-Admitted Low Acuity	108,849	107,298	105,719	102,757	101,452	8,894 - 25,097
% Within Target of 4 Hrs - Non-Admitted Low Acuity	93%	91%	87%	88%	87%	74% - 94%
Time to Disposition for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	4	3 - 6
ED LOS for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	4	3 - 6
Non-admitted high acuity ED visits						
ED Volumes - Non-Admitted High Acuity	121,965	130,094	133,566	132,718	140,770	11,173 - 51,084
% Within Target of 8 Hrs - Non-Admitted High Acuity	96%	96%	95%	95%	94%	89% - 98%
Time to Disposition for Non-Admitted High Acuity - 90th Percentile	7	7	7	7	7	5 - 8
ED LOS for Non-Admitted High Acuity - 90th Percentile	6	6	7	7	7	5 - 8
Admitted ED visits						
ED Volumes - Admitted	22,693	23,153	23,783	23,894	25,520	1,781 - 10,402
Admission Rate - CTAS 1	46%	46%	45%	46%	45%	29% - 49%
Admission Rate - CTAS 2	26%	25%	25%	25%	25%	22% - 28%
Admission Rate - CTAS 3	10%	10%	10%	10%	10%	7% - 11%
Admission Rate - CTAS 4	1%	1%	1%	1%	1%	0% - 2%
Admission Rate - CTAS 5	1%	0%	0%	1%	1%	0% - 1%
Time to Disposition for Admitted - 90th Percentile	9	9	10	10	11	7 - 13
ED LOS for Admitted - 90th Percentile	25	27	25	27	29	13 - 42
% Within Target of 8 Hrs - Admitted	49%	46%	47%	48%	39%	23% - 72%
Time to Inpatient Bed - 90th Percentile	20	22	19	20	23	5 - 35

## Acute Care

### Acute Care Utilization by Residents of the North Simcoe Muskoka LHIN

#### Acute Separations

- In 2016/17, there were 40,387 acute separations (discharges), 196,265 acute days, and 240,491 total days (including acute and alternate level of care days) for North Simcoe Muskoka LHIN residents.
- The acute separation rate for North Simcoe Muskoka LHIN residents was 83 separations per 1,000 residents in 2016/17 but varied substantially by sub-region of patient residence.
  - Rates were the lowest for residents of the [Barrie and Area](#) sub-region and highest for residents of [North Simcoe](#).
- From 2013/14 to 2016/17, the overall acute separation rate for North Simcoe Muskoka LHIN residents increased by 0.4%.

#### Acute Days

- The rate of acute days for North Simcoe Muskoka LHIN residents was 404 acute days per 1,000 residents in 2016/17.
  - Rates were the lowest for residents of [Barrie and Area](#) sub-region (363) and highest for [North Simcoe](#) (529) in 2016/17.

#### Mean Length of Stay

- The mean total length of stay (including acute days and days waiting for an alternate level of care) for North Simcoe Muskoka LHIN residents was 6.0 days, while the mean acute length of stay was 4.9 days in 2016/17.
  - [South Georgian Bay](#) was among the lowest ranking Ontario sub-regions for acute length of stay – with values well below Ontario.

#### HIG Weight

- The Ontario HBAM Inpatient Grouper (HIG) (similar to CMG+) aggregates acute care separations with similar resource use and clinical characteristics based on most responsible diagnosis and/or principal intervention. The HIG weight is a relative cost value that reflects the resources consumed during each acute care stay. The mean HIG weight for North Simcoe Muskoka LHIN residents declined slightly from 1.49 2014/15 to 1.47 in 2016/17, and remained well below the provincial value (1.55).
- The top 3 HIGs accounting for the highest proportion of acute care days for North Simcoe Muskoka LHIN residents in 2016/17 were: 196-heart failure without coronary angiogram, 138-viral/unspecified pneumonia, and 026-ischemic event of central nervous system.

### Acute Care Hospital Utilization (Excluding ALC) LHIN of Patient, North Simcoe Muskoka LHIN, 2016/17

	North Simcoe Muskoka LHIN Residents	Ontario Residents*	Rank among LHINs	Range across North Simcoe Muskoka sub- regions
<b>Acute Care Measures</b>				
Total Population	486,453	13,982,984		53,823 – 224,994
Acute Separations	40,387	1,028,979		5,635– 15,955
Acute Separation Rate per 1,000 Population	83	74		71 - 105
Acute Days	196,265	5,455,693		26,781 – 81,560
Acute Days Rate per 1,000 Population	404	390		363 – 529
Total Days	240,491	6,477,528		33,219 – 101,915
Total Days Rate per 1,000 Population	494	463		453 – 622
Mean Acute LOS	4.9	5.3	3 <sup>rd</sup> Highest	4.4 – 5.1
Mean Total LOS	6.0	6.3	4 <sup>th</sup> Highest	5.5 – 6.4
Mean HIG Weight	1.47	1.55	4 <sup>th</sup> Highest	—
<b>Leading HIGs (Acute Care Days)†</b>				
(196) Heart Failure w/o Coronary Angiogram	5,374	175,995		599 – 2,262
(138) Viral/Unspecified Pneumonia	4,472	119,810		160 – 2,088
(026) Ischemic Event of Central Nervous System	4,253	96,544		484 – 1,797

\* Ontario residents exclude Out-of-province

† Leading HIGs include Out-of-province for Ontario Values

### Acute Care Utilization for North Simcoe Muskoka LHIN Facilities

- There were 35,384 acute separations, 166,093 acute days, and 210,598 total days at North Simcoe Muskoka LHIN hospitals in 2016/17.

#### Separations

- Separations increased by 6.6% between 2013/14 and 2016/17. During this same period, for Ontario hospitals overall, separations increased by 3.8%.

#### Acute Days

- Acute days increased by 3.2% between 2013/14 and 2016/17. Acute days increased by 2.2%, for all Ontario hospitals overall, during this same period.
- Mean acute length of stay for 2016/17 at hospitals in the North Simcoe Muskoka LHIN was 4.7 days. This is lower than the provincial result of 5.3 days.

### Total Days

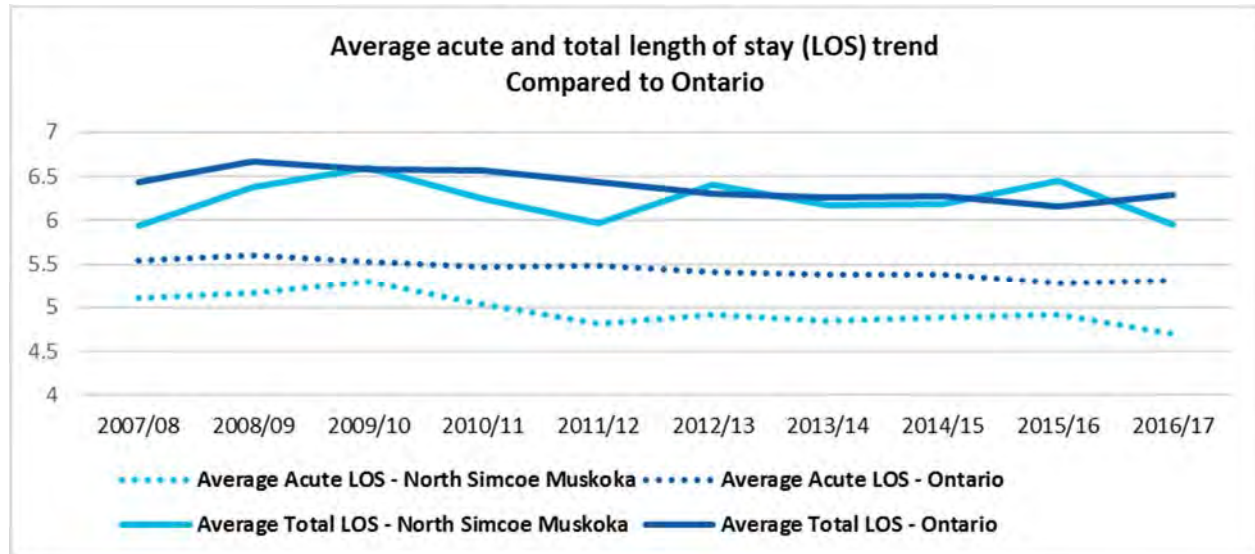
- Total days increased by 2.8% between 2013/14 and 2016/17. Overall Ontario hospitals had an increase of 4.2% of total days during this period.
- Mean total length of stay for this LHIN was 6.0 days. Lower than the mean total length of stay for Ontario, which was 6.3 days.

### HBAM Group (HIG) Weight

- Mean HIG weight for North Simcoe Muskoka LHIN hospitals in 2016/17 of 1.32 was lower than the provincial value of 1.55 and 2nd lowest of all LHINs.

### Acute care hospital utilization, North Simcoe Muskoka LHIN, 2016/17

Measure	North Simcoe Muskoka LHIN	Ontario hospitals	Comments	LHIN % change 2013/14 - 2016/17	Range within LHINs
Acute separations	35,384	1,041,308		6.6%	26,295 - 159,315
Total days	210,598	6,542,800		2.8%	193,259 - 1,050,391
Mean total LOS	6.0	6.3			5.0 - 7.3
Acute days	166,093	5,518,912		3.2%	142,875 - 917,167
Mean acute LOS	4.7	5.3			4.5 - 5.8
Mean HIG weight	1.32	1.55	2 <sup>nd</sup> lowest		1.23 - 1.94





## Acute Care Inflow/Outflow

### Inflow

- 10.3% of hospital separations from North Simcoe Muskoka LHIN hospitals were by non- North Simcoe Muskoka LHIN residents

### Outflow

- 21.4% of separations for North Simcoe Muskoka LHIN residents were from hospitals outside North Simcoe Muskoka LHIN

### Inflow - Outflow, North Simcoe Muskoka LHIN, 2016/17

Measures	North Simcoe Muskoka LHIN	Ontario Hospitals	Comments	Range across NSM sub- regions
Acute separations, LHIN of hospital	35,385	1,041,322	2 <sup>nd</sup> lowest	4,740 – 12,085
Acute separations, LHIN of patient	40,388	1,041,322	2 <sup>nd</sup> lowest	5,635 – 15,956
% inflow	10.3%			NA
% outflow	21.4%			15.9% - 24.3%

## Post-Acute Care

### Inpatient Rehabilitation Utilization

#### Rehabilitation Admissions

- The number of total rehabilitation admissions at the LHIN hospitals, including both general admissions and special admissions, was 522 in FY 16/17, an increase of 10.4% from FY 13/14.
  - The number of general rehabilitation admissions was 522 in FY 16/17, an increase of 10.4% from FY 13/14.
- The number of total rehabilitation admissions of the LHIN residents, was 799 in FY 16/17, an increase of 4.0% from FY 13/14.

#### Active Cases and Discharges

- In FY 16/17, the number of active cases was 1,672 while the number of discharges was 517.

#### Inpatient Days

- The number of total inpatient days was 11,853 in FY 16/17.
- The mean length of stay at the LHIN hospitals was 22.9 days.
- By sub-region of patient residence:
  - Muskoka residents had the longest length of stay at 28.8 days.
  - North Simcoe residents had the shortest length of stay at 20.7 days.

#### Admission Rate

- The number of admissions per 100,000 adults (age 18+) was 201.1 in FY 16/17, a decrease of 1.4% from FY 13/14.
  - Age group 18-44 years had the lowest admission rate, 27.7 per 100,000 population.
  - Age group 80+ years had the highest admission rate, 1,120.5 per 100,000 population.
- By sub-region of patient residence:
  - North Simcoe residents had the highest admission rate at 409.3.
  - Muskoka residents had the lowest admission rate at 130.2.

#### Active Case Rate

- The number of active cases per 1,000 population age 18+ was 481.5.

#### Discharge Rate

- The number of discharges per 1,000 population age 18+ was 200.4.

#### Leading Rehabilitation Group

- The 5 leading rehabilitation groups that contributed to the total admissions in FY 16/17 were:
  - Stroke accounted for 181 admissions or 22.7% of the total admissions.
  - Other disabilities accounted for 107 admissions or 13.4% of the total admissions.
  - Fracture of lower extremity accounted for 102 admissions or 12.8 % of the total admissions.
  - Replacement of lower extremity accounted for 81 admissions or 10.1% of the total admissions.
  - Cardiac accounted for 55 admissions or 6.9% of the total admissions.

#### Outflow

- Hospitals outside the LHIN accounted for 39.5% of the total rehabilitation admissions of the LHIN residents.
- By sub-region of patient residence:

- Muskoka residents had the highest rate of admission to hospitals outside the LHIN at 84.1%.
- North Simcoe residents had the lowest rate of admission to hospitals outside the LHIN at 16.7%.

#### Inflow

- 7.5% of the rehabilitation admissions at the hospitals in the LHIN were residents from outside North Simcoe Muskoka.

Rehab Admissions, Active Cases, Discharges and Days*	LHIN	Ontario	Ranking Among LHINs**	% Change 2013/14-2016/17	Range across sub-region
<b>LHIN of hospital</b>					
General admissions	522	28,691		10.4%	
Special admissions		4,444			
Total admissions	522	33,135		10.4%	
% Inflow inpatient rehab admissions	7.5%				
Active Cases	1,672	43,329			
Discharges	517	33,133			
Total Days (discharged cases only)	11,853	839,228			
Mean Length of Stay (discharged cases only)	22.9	25.3	3 <sup>rd</sup> lowest		
<b>LHIN of patient</b>					
Total population age 18+	397,292	11,287,810		5.4%	
Total admissions	799	33,016		4.0%	69-267
Admissions/100,000 population age 18+	201.1	292.5	2 <sup>nd</sup> lowest	-1.4%	130.2-409.3
Admissions/100,000 population age 18-44 years	27.7	30.4			15.4-71.8
Admissions/100,000 population age 45-64 years	119.6	150.9	3 <sup>rd</sup> lowest		100.9-161.4
Admissions/100,000 population age 65-79 years	460.2	689.3	2 <sup>nd</sup> lowest		232.9-740.7
Admissions/100,000 population age 80+ years	1,120.5	2,311.8	Lowest		465.6-2,618.3
% Outflow inpatient rehabilitation admissions	39.5%				16.7%-84.1%
Active cases per 1,000 population age 18+	481.5	382.3	2 <sup>nd</sup> highest		416.4-724.0
Discharges per 1,000 population age 18+	200.4	292.5	2 <sup>nd</sup> lowest		126.5-396.1
Mean Length of Stay (discharged cases only)	23.8	25.3	2 <sup>nd</sup> lowest		20.7-28.8

Measure	Barrie and Area	South Georgian Bay	Couchiching	Muskoka	North Simcoe
Rehab Admissions	267	127	150	69	186
Rehab Admission Rate per 100,000 Population	150.4	238.9	219.8	130.2	409.3
Rehab Active Cases	739	276	327	242	329
Rehab Active Case Rate per 100,000 Population	416.4	519.3	479.2	456.8	724.0
Rehab Discharges	264	131	154	67	180
Rehab Discharge Rate per 100,000 Population	148.7	246.5	225.7	126.5	396.1
Total Inpatient Days (discharged cases only)	5,912	3,190	4,155	1,931	3,717
Mean LOS (discharged cases only)	22.4	24.4	27.0	28.8	20.7
<b>Age specific admission rates per 100,000 population</b>					

18-44 years	15.4	63.9	20.4	-	71.8
45-64 years	101.6	128.6	140.7	100.9	161.4
65-79 years	480.1	382.6	498.3	232.9	740.7
80+ years	976.0	1,137.7	969.8	465.6	2,618.3

Rehab Admissions, by Leading Rehabilitation Groups*	LHIN	% of Total Rehab Admission
<b>LHIN of Patient</b>		
01-Stroke	181	22.7%
18-Other disabilities	107	13.4%
10-Fracture of lower extremity	102	12.8%
11-Replacement of lower extremity	81	10.1%
13-Cardiac	55	6.9%
12-Other orthopaedic		
03-Non-traumatic brain injury		
06-Non-traumatic spinal cord injury		
07-Amputation		
02-Traumatic brain injury		
16-Major multiple trauma		

\* FY 16/17 data unless noted otherwise.

\*\* Top or bottom 4 ranking in the province, compared to other LHINs.

## Complex Continuing Care Utilization

### Complex Continuing Care

- In 2016/17, there were 343 CCC active cases treated in North Simcoe Muskoka LHIN hospitals and residents from outside the LHIN accounted for 4.1% of these active cases. In 2016/17, there were 270 admissions and 264 discharges from North Simcoe Muskoka LHIN hospital CCC units. North Simcoe Muskoka LHIN hospitals had a mean LOS of 39.0 days - ranking 2nd across LHINs.
- There were reductions in the number of active cases (-59.3%), admissions (-62.8%), discharges (-64.0%) and total days (-73.5%) for North Simcoe Muskoka LHIN hospital CCC units between 2013/14 and 2016/17.
- During the period, the mean length of stay in CCC beds decreased from 53.0 days to 39.0 days.
- In 2016/17, there were 426 CCC active cases for North Simcoe Muskoka LHIN residents, and 22.8% of these cases were treated in hospitals outside the LHIN.
- The active case rate for North Simcoe Muskoka LHIN residents was lower than the provincial value.

### Utilization of Complex Continuing Care, North Simcoe Muskoka LHIN and Ontario, 2016/17

Measure	North Simcoe Muskoka LHIN		Ontario	
	LHIN	% Change	Provincial	% Change
	Values	2013/14-2016/17	Value	2013/14-2016/17
<b>LHIN of Hospital</b>				
Active Cases	343	-59.3%	29,466	-0.1%
% Inflow	4.1%			
Admissions	270	-62.8%	24,108	0.5%
Discharges	264	-64.0%	23,995	-0.2%
Total Days	10,292	-73.5%	1,855,227	-2.0%
mean LOS	39.0		77.3	
<b>LHIN of Patient</b>				
Active Cases	426	-36.2%	29,366	0.3%
Active cases/100,000 population	87.6	-38.8%	210.0	-2.9%
% Outflow	22.8%			
Admission	339	-38.9%	24,022	0.8%
Admissions/100,000 population	69.7		171.8	
Discharges	329	-42.4%	23,908	0.1%
Discharges/100,000 population	67.6		171.0	
Total Days	19,640	-42.8%	1,850,599	-1.1%
mean LOS	59.7		77.4	

## Alternate Level of Care

### LHIN overview

North Simcoe Muskoka LHIN						
Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Rank
Acute ALC Days (closed cases)	43,851	44,017	53,476	44,503	NV	4
% ALC Days (Acute Inpatient closed cases)	21.4%	21.0%	23.8%	21.1%	NV	12
Volume of Closed Cases	2,664	2,843	2,829	2,787	2,807	4
Volume of Closed Cases - Home with CCAC Services	629	692	694	747	712	
Volume of Closed Cases – Rehabilitation	301	329	371	357	392	
Volume of Closed Cases - Supervised or Assisted Living	229	346	421	537	567	
90 <sup>th</sup> Percentile Wait of Closed Cases (Days)	48	32	31	35	37	4
90 <sup>th</sup> Percentile Wait of Closed Cases - Home with CCAC Services	28	25	25	28	26	
90 <sup>th</sup> Percentile Wait of Closed Cases – Rehabilitation	14	16	14	17	18	
90 <sup>th</sup> Percentile Wait of Closed Cases - Supervised or Assisted Living	43	39	46	49	63	
Volume of Open Cases on the last day of the year	158	168	143	109	223	5
Volume of Open Cases - Home with CCAC Services	25	24	28	18	30	
Volume of Open Cases - Long Term Care	69	57	43	22	36	
Volume of Open Cases - Supervised or Assisted Living	26	27	34	24	49	
90 <sup>th</sup> Percentile Wait of Open Cases	373	299	198	125	124	1
90 <sup>th</sup> Percentile Wait of Open Cases - Home with CCAC Services	38	57	87	84	46	
90 <sup>th</sup> Percentile Wait of Open Cases - Long Term Care	441	733	413	443	368	
90 <sup>th</sup> Percentile Wait of Open Cases - Supervised or Assisted Living	432	287	162	234	212	
Throughput Ratio (discharged case/newly added cases)	1.00	1.00	1.01	1.01	0.94	1
% of Cases Designated ALC Within 1 Day	7.0%	5.7%	5.6%	6.5%	5.6%	7
% of Cases Designated ALC Within 2 Days	12.0%	10.4%	9.5%	10.8%	9.9%	6
% of Cases Designated ALC Within 3 Days	18.5%	17.5%	15.5%	16.9%	15.5%	6
ALC Rate - All Inpatient Services	16.2%	15.0%	15.4%	14.3%	16.1%	10
ALC Rate - Acute Inpatient Services	22.8%	21.9%	21.4%	19.8%	21.9%	11
ALC Rate - Post-Acute Inpatient Services	7.7%	5.6%	6.4%	6.3%	8.0%	3
ALC Rate - CCC Inpatient Services	20.5%	14.1%	7.1%	6.1%	7.5%	3
ALC Rate - Rehab Inpatient Services	3.6%	2.9%	4.1%	2.9%	3.1%	2
ALC Rate - Mental Health Inpatient Services	5.0%	4.2%	6.5%	6.6%	8.6%	7

## Closed ALC Cases

### Acute ALC Days

- Acute ALC Days increased by 652 from FY 13/14 to FY 16/17

### % ALC Days (Acute Inpatient)

- % ALC Days decreased from 21.4% in FY 13/14 to 21.1% in FY 16/17

### Volume of Closed Cases

- The volume of closed cases for all inpatient services increased by 5% from 2,664 in FY 13/14 to 2,807 in FY 17/18.
  - Home with CCAC Services – number of closed cases increased by 13% from 629 in FY 13/14 to 712 in FY 17/18.
  - Rehabilitation – number of closed cases increased by 30% from 301 in FY 13/14 to 392 in FY 17/18.
  - Supervised or Assisted Living – number of closed cases increased by 148% from 229 in FY 13/14 to 567 in FY 17/18.

### 90th Percentile Wait of Closed Cases

- The wait time for closed cases (all inpatient services and all discharge destinations) decreased by 23% from 48 days in FY 13/14 to 37 days in FY 17/18. 11th across LHINs at the end of FY 17/18.
  - Home with CCAC Services – wait time decreased by 7% from 28 days in FY 13/14 to 26 days in FY 17/18.
  - Rehabilitation – wait time increased by 29% from 14 days in FY 13/14 to 18 days in FY 17/18.
  - Supervised or Assisted Living – wait time increased by 47% from 43 days in FY 13/14 to 63 days in FY 17/18.

### Wait Time by Sub-Region of Patient Residence

- **Barrie and Area** highest sub-region at 42 days; **North Simcoe** lowest sub-region at 25 days.
- **North Simcoe** is tied for 4<sup>th</sup> lowest in province

## Open ALC Cases

### Volume of Open Cases

- The number of ALC waitlist entries open across all inpatient bed types increased by 41% from 158 at the end of FY 13/14 to 223 at the end of FY 17/18.
  - Home with CCAC Services – number of open cases increased by 20% from 25 at the end of FY 13/14 to 30 at the end of FY 17/18.
  - Long-term Care – number of open cases decreased by 48% from 69 at the end of FY 13/14 to 36 at the end of FY 17/18.
  - Supervised or Assisted Living - number of open cases increased by 88% from 26 at the end of FY 13/14 to 49 at the end of FY 17/18.

### 90<sup>th</sup> Percentile Wait of Open Cases

- The wait time for open cases (all inpatients services and all discharge destinations) decreased by 67% from 373 days at the end of FY 13/14 to 124 days at the end of FY 17/18. Patients awaiting discharge from North Simcoe Muskoka LHIN hospitals had waited 87 days longer than patients who were discharged in 17/18, and had the **shortest** wait across the LHINs.
  - Home with CCAC Services – wait time increased by 21% from 38 days at the end of FY 13/14 to 46 days at the end of FY 17/18.
  - Long-term Care – wait time decreased by 17% from 441 days at the end of FY 13/14 to 368 days at the end of FY 17/18.
  - Supervised or Assisted Living - wait time decreased by 51% from 432 days at the end of FY 13/14 to 212 days at the end of FY 17/18.

### Wait Time by Sub-Region of Patient Residence

- **Muskoka** highest sub-region at 390 days; **Barrie and Area** lowest sub-region at 57 days.
- **Barrie and Area** is 3<sup>rd</sup> lowest in province.

### ALC Wait Time (Days) by Sub-Region of Patient Residence

LHIN					
Closed & Open Cases - All Discharge Destinations by Sub-Region	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
90 <sup>th</sup> Percentile Wait of Closed Cases					
1201 BARRIE AND AREA	50	37	40	39	42
1202 SOUTH GEORGIAN BAY	36	28	25	26	27
1203 COUCHICHING	32	22	28	32	41
1204 MUSKOKA	50	32	36	38	33
1205 NORTH SIMCOE	53	43	21	30	25
90 <sup>th</sup> Percentile Wait of Open Cases					
1201 BARRIE AND AREA	441	733	66	88	57
1202 SOUTH GEORGIAN BAY	88	28	165	65	114
1203 COUCHICHING	112	203	83	234	79
1204 MUSKOKA	195	160	489	123	390
1205 NORTH SIMCOE	432	287	472	640	368



## Hospital Processes and Capacity

### ALC Throughput Ratio

- In the North Simcoe Muskoka LHIN, the throughput ratio decreased from 1.00 in FY 13/14 to 0.94 in FY 17/18

### Percentage of Patients Designated ALC within 1, 2 & 3 Days of Admission

- The percentage of patients that have been designated as requiring an alternate level of care within one, two and three days of admission to hospital decreased over the last five years in the North Simcoe Muskoka LHIN from FY 13/14 to FY 17/18. All 3 measures are ranked 8<sup>th</sup>, 9<sup>th</sup>, 9<sup>th</sup> respectively in the province.

### ALC Rate (All Inpatient Services)

- The annual ALC rate for all inpatient beds decreased from 16.2% in FY 13/14 to 16.1% in FY 17/18.
- In FY 17/18, the [North Simcoe Muskoka](#) LHIN was above the provincial rate of 15.4%.

#### *Acute I/P Services*

- [North Simcoe Muskoka](#) LHIN decreased over the past 5 fiscal years (22.8% FY 13/14; 21.9% FY 17/18) and is now 5.7% above the provincial value.

#### *Post-Acute I/P Services*

- [North Simcoe Muskoka](#) LHIN increased over the past 5 fiscal years (7.7% FY 13/14; 8.0% FY 17/18). [North Simcoe Muskoka](#) LHIN is above the provincial post-acute ALC rate (12th highest in ON).
  - CCC Inpatient Services – 12<sup>th</sup> across LHINs for FY 17/18. Rate decreased from 20.5% in FY 13/14 to 7.5% in FY 17/18.
  - Mental Health Inpatient Services – 8<sup>th</sup> across LHINs for FY 17/18. Rate increased from 5.0% in FY 13/14 to 8.6% in FY 17/18.
  - Rehab Inpatient Services – 13<sup>th</sup> across LHINs for FY 17/18. Rate decreased from 3.6% in FY 13/14 to 3.1% in FY 17/18.

## LHIN/Facility/Site – Annual ALC Rate

Province/LHIN/Facility/Site			Annual ALC Rate					% Change FY 13/14 to FY 17/18
			FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	
<b>Provincial</b>			<b>13.8%</b>	<b>13.7%</b>	<b>13.9%</b>	<b>14.8%</b>	<b>15.4%</b>	
<b>LHIN</b>	<b>12</b>		<b>16.2%</b>	<b>15.0%</b>	<b>15.4%</b>	<b>14.3%</b>	<b>16.1%</b>	<b>(-0.1%)</b>
<b>Facility</b>	606	ROYAL VICTORIA REGIONAL HEALTH CENTRE	18.0%	17.2%	17.3%	18.0%	19.5%	1.6%
<b>Facility</b>	640	COLLINGWOOD GENERAL AND MARINE HOSPITAL	24.2%	21.6%	25.2%	25.1%	21.2%	<b>(-3.0%)</b>
<b>Facility</b>	726	GEORGIAN BAY GENERAL HOSPITAL	24.5%	21.1%	15.6%	14.2%	15.9%	<b>(-8.7%)</b>
<b>Site</b>	4241	GEORGIAN BAY GENERAL HOSPITAL - MIDLAND SITE	27.2%	22.0%	15.6%	14.2%	15.9%	<b>(-11.3%)</b>
<b>Site</b>	4706	GEORGIAN BAY GENERAL HOSPITAL - PENETANGUISHENE SITE	20.9%	18.5%	N/A	N/A	N/A	
<b>Facility</b>	745	ORILLIA SOLDIERS' MEMORIAL HOSPITAL	18.8%	21.2%	18.5%	14.7%	19.8%	1.0%
<b>Facility</b>	968	MUSKOKA ALGONQUIN HEALTHCARE	23.6%	17.9%	19.3%	15.2%	17.1%	<b>(-6.5%)</b>
<b>Site</b>	4618	MUSKOKA ALGONQUIN HEALTHCARE- HUNTSVILLE	29.8%	26.9%	23.0%	17.3%	23.5%	<b>(-6.3%)</b>
<b>Site</b>	4621	MUSKOKA ALGONQUIN HEALTHCARE- BRACEBRIDGE	19.1%	11.6%	17.0%	13.8%	12.6%	<b>(-6.5%)</b>
<b>Facility</b>	972	WAYPOINT CENTRE FOR MENTAL HEALTH CARE	5.2%	4.6%	7.3%	7.1%	9.1%	4.0%
<b>Site</b>	4550	WAYPOINT CENTRE FOR MENTAL HEALTH CARE- PROVINCIAL	0.8%	0.7%	0.3%	0.0%	1.4%	0.6%
<b>Site</b>	4551	WAYPOINT CENTRE FOR MENTAL HEALTH CARE- REGIONAL	10.5%	9.5%	15.4%	15.3%	17.7%	7.3%

- In FY 17/18, Collingwood General and Marine Hospital had the highest ALC Rate across the North Simcoe Muskoka LHIN at the facility level, with Muskoka Algonquin Healthcare - Huntsville having the highest site level rate.
- Waypoint Center - Regional had the greatest increase in ALC Rate since FY 13/14 (+7.3%)
- Georgian Bay General Hospital – Midland had the greatest decrease in ALC Rate since FY 13/14 (-11.3%).

## Long-Term Care

### Long-Term Care Bed Supply

- 26 LTC homes are licensed and approved to operate in North Simcoe Muskoka LHIN.
- As of February 2018, there were a total of 3,066 Long-Term Care beds in operation in North Simcoe Muskoka LHIN.
  - With the exception of 87 beds designated as Short-stay, Respite or Convalescent care beds, almost all of the LTC beds are designated Long-Stay Beds or Interim beds.

### Long-Term Care Waitlist & Placements

- Of the 980 patients placed in North Simcoe Muskoka LHIN Long-Term Care Homes in FY 2017/18, approximately 87% were from the community while only 10% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province)
- Of the 994 residents of North Simcoe Muskoka LHIN placed in Ontario Long-Term Care Homes in FY 2017/18, approximately 87% were from the community while only 10% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province)
- The median time to placement in a North Simcoe Muskoka LHIN long-term care home, as of March 2018, was 182 days.
  - Half of community patients waited less than 190 days for a placement in a North Simcoe Muskoka LHIN LTC home while half of hospital patients waited less than 140 days for placement in a North Simcoe Muskoka LHIN LTC Home.
- The median time to placement for a North Simcoe Muskoka LHIN resident to be placed in a long-term care home, as of March 2018, was 183 days.
  - Half of community patients from North Simcoe Muskoka LHIN waited less than 189 days for a placement in an Ontario LTC home while half of hospital patients waited less than 150 days for placement.
- As of March 2018, there were 1,803 patients on the waitlist waiting for placement in a Long-Term Care home in North Simcoe Muskoka LHIN (not including patients awaiting transfer from one LTC home to another).
- As of March 2018, there were 1,743 residents of North Simcoe Muskoka LHIN on the waitlist waiting for placement in an Ontario Long-Term Care home (not including patients awaiting transfer from one LTC home to another).

### Long-Stay Demand

- As of March 2018, there were 2,935 long-stay residents occupying LTC Homes within North Simcoe Muskoka LHIN.
- When adjusted for the size of the older population, North Simcoe Muskoka LHIN has approximately 75 Long-Stay beds per 1,000 people aged 75+.
- The gap between the Demand and Supply of Long-Term Care Homes in North Simcoe Muskoka LHIN reflects a shortage of approximately 1,759 Long-Stay beds.
  - The largest gap is in the [Barrie and Area](#) sub-region (635 beds) and the smallest in [North Simcoe](#) (180 beds).

### Selected Characteristics of Long-Term Care Home Residents

- In North Simcoe Muskoka LHIN, 85% of Residents were over the age of 75 with 58% being over the age of 85.
- In 2016/17, the mean age of residents of LTC Homes in North Simcoe Muskoka LHIN was 84.

- The mean length of stay for residents of LTC Homes in North Simcoe Muskoka LHIN was 880 days (about 2.4 years) with half of residents remaining in LTC homes for less than 611 days.
- Nearly 80% of residents need extensive help with daily activities such as getting out of bed, eating, or toileting; 19% are highly or entirely dependent on staff.
- 82% have some form of cognitive impairment; 25% are severely impaired.
- 44% exhibit some level of aggressive behaviour related to their cognitive impairment or mental health condition with 4% exhibiting very severe aggressive behavior.
- 69% of active LTC Residents in North Simcoe Muskoka LHIN LTC Homes have been identified as having some form of dementia.

### Long-term care home supply, waitlists and placements, and resident characteristics, by LHIN sub-region

	North Simcoe Muskoka		1201		1202		1203		1204		1205	
			Barrie and Area		South Georgian Bay		Couchiching		Muskoka		North Simcoe	
Long-term care bed supply in the sub-region (February 2018)	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-term care homes	26		10		5		4		4		3	
Long-stay beds	2,979	74.7	1,126	82.0	412	61.3	519	69.7	509	75.0	413	79.7
Short-stay, respite & convalescent care beds	87	2.2	43	3.1	6	0.9	2	0.3	28	4.1	8	1.5
Total beds in operation	3,066	76.9	1,169	85.1	418	62.2	521	70.0	537	79.1	421	81.2

*†The denominator for the rate calculation refers to the number of sub-region residents age 75+; however the LTC homes/beds may serve individuals from other sub-regions. Therefore, rates should be interpreted with caution.*

	North Simcoe Muskoka		1201		1202		1203		1204		1205	
			Barrie and Area		South Georgian Bay		Couchiching		Muskoka		North Simcoe	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>By sub-region of long-term care home (patients awaiting placement in a home within the sub-region)</b>												
Long-stay waitlist without transfer patients*	1,803	45.2	655	47.7	206	30.7	343	46.1	418	61.6	181	34.9
<b>Placements**</b>												
From community	854	87.1%	327	87.9%	98	88.3%	159	86.9%	129	90.8%	141	82.0%
From hospital	100	10.2%	39	10.5%	7	6.3%	23	12.6%	11	7.7%	20	11.6%
Total	980		372		111		183		142		172	
<b>Median time to placement (days)</b>												
From community	190		182.0		164.5		209.0		283.0		148.0	

	North Simcoe Muskoka		1201		1202		1203		1204		1205	
			Barrie and Area		South Georgian Bay		Couchiching		Muskoka		North Simcoe	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
From hospital	140		231.0		50.0		79.0		97.0		288.5	
Total	182		188.5		151.0		205.0		259.0		144.0	
<b>By sub-region of patient (patients who reside within the sub-region and are awaiting placement in any home)</b>												
Long-stay waitlist without transfer patients*	1,743	43.7	575	41.9	231	34.4	349	46.9	399	58.8	189	36.5
Placements**												
From community	869	87.4%	318	87.8%	126	86.9%	135	90.0%	149	88.7%	141	83.4%
From hospital	97	9.8%	38	10.5%	13	9.0%	15	10.0%	17	10.1%	14	8.3%
Total	994		362		145		150		168		169	
Median time to placement (days)												
From community	189		190.5		129.5		260.0		238.0		165.0	
From hospital	150		216.5		42.0		78.0		95.0		325.0	
Total	183		194.5		127.0		251.5		187.0		164.0	

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents

Placements from other locations (correctional facilities, homeless, out-of-province) are not shown but are included in the total placement values.

	North Simcoe Muskoka		1201		1202		1203		1204		1205	
			Barrie and Area		South Georgian Bay		Couchiching		Muskoka		North Simcoe	
Long-stay demand (February / March 2018) for LTC homes in the sub-region	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-stay residents	2,935	73.6	1,106	80.5	408	60.7	506	68.0	503	74.1	412	79.5
Long-stay waitlist without transfer patients	1,803	45.2	655	47.7	206	30.7	343	46.1	418	61.6	181	34.9
Total demand	4,738	118.8	1,761	128.2	614	91.4	849	114.1	921	135.6	593	114.4
Total long-stay supply	2,979	75	1,126	82.0	412	61.3	519	69.7	509	75.0	413	79.7
Difference between supply and demand	1,759	44	635	46.2	202	30.1	330	44.3	412	60.7	180	34.7

	North Simcoe Muskoka		1201		1202		1203		1204		1205	
			Barrie and Area		South Georgian Bay		Couchiching		Muskoka		North Simcoe	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Demography, volume and length of stay (LOS)</b>												
Active LTC Residents*	2,703	67.8	1,047	76.2	356	53.0	468	62.9	478	70.4	354	68.3
Number of admissions*	1,067	26.8	375	27.3	162	24.1	193	25.9	207	30.5	130	25.1
<b>By age group**</b>												
Residents age <65	141	5.2%	63	6.0%	21	5.9%	23	4.9%	19	4.0%	15	4.2%
Residents age 65-74	273	10.1%	103	9.8%	29	8.1%	43	9.2%	49	10.3%	49	13.8%
Residents age 75-84	725	26.8%	254	24.3%	115	32.3%	137	29.3%	126	26.4%	93	26.3%
Residents age 85+	1,564	57.9%	627	59.9%	191	53.7%	265	56.6%	284	59.4%	197	55.6%
Mean age of residents	84		84		84		84		85		84	
Mean age of residents at admission	84		84		83		83		84		84	
<b>Length of stay</b>												
Mean LOS (days)	880		939		832		777		827		1,032	
Median LOS (days)	611		661		391		515		605		665	
<b>Residents by level of ADL assistance required**</b>												
None or limited assistance required	539	19.9%	185	17.7%	75	21.1%	107	22.9%	100	20.9%	72	20.3%
Extensive assistance required	1,646	60.9%	663	63.3%	201	56.5%	285	60.9%	289	60.5%	208	58.8%
Dependent	518	19.2%	199	19.0%	80	22.5%	76	16.2%	89	18.6%	74	20.9%
<b>Residents by level of aggressive behaviour**</b>												



	North Simcoe Muskoka		1201		1202		1203		1204		1205	
			Barrie and Area		South Georgian Bay		Couchiching		Muskoka		North Simcoe	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
No signs of aggressive behaviour	1,522	56.3%	641	61.2%	241	67.7%	239	51.1%	190	39.7%	211	59.6%
Some signs of aggressive behaviour	702	26.0%	237	22.6%	83	23.3%	152	32.5%	144	30.1%	86	24.3%
Moderate to severe aggressive behaviour	373	13.8%	135	12.9%	28	7.9%	60	12.8%	104	21.8%	46	13.0%
Very severe aggressive behaviour	105	3.9%	33	3.2%	<5		17	3.6%	40	8.4%	11	3.1%
<b>Cognitive impairment categories **</b>												
Relatively intact	480	17.8%	190	18.1%	67	18.8%	90	19.2%	52	10.9%	81	22.9%
Mild impairment	1,534	56.8%	587	56.1%	217	61.0%	248	53.0%	278	58.2%	204	57.6%
Severe impairment	689	25.5%	270	25.8%	72	20.2%	130	27.8%	148	31.0%	69	19.5%
<b>RUG categories **</b>												
1 Extensive Services	86	3.2%	22	2.1%	19	5.3%	13	2.8%	25	5.2%	7	2.0%
2 Special Rehabilitation	150	5.5%	68	6.5%	16	4.5%	36	7.7%	6	1.3%	24	6.8%
3 Special Care	331	12.2%	124	11.8%	65	18.3%	53	11.3%	45	9.4%	44	12.4%
4 Clinically Complex	555	20.5%	215	20.5%	65	18.3%	115	24.6%	104	21.8%	56	15.8%
5 Impaired Cognition	388	14.4%	137	13.1%	54	15.2%	68	14.5%	93	19.5%	36	10.2%
6 Behavioural Problems	33	1.2%	21	2.0%	<5		<5		<5		<5	
7 Reduced Physical Functions	1,160	42.9%	460	43.9%	133	37.4%	181	38.7%	202	42.3%	184	52.0%
<b>Residents with Dementia**</b>	<b>1,862</b>	<b>68.9%</b>	<b>732</b>	<b>69.9%</b>	<b>237</b>	<b>66.6%</b>	<b>342</b>	<b>73.1%</b>	<b>344</b>	<b>72.0%</b>	<b>207</b>	<b>58.5%</b>

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents



## 13. North East LHIN



## Contents

<b>13. North East LHIN</b>	<b>1</b>
<b>Highlights</b>	<b>1</b>
North East LHIN .....	1
North East LHIN Sub-Regions .....	4
<b>Population Characteristics</b>	<b>11</b>
Population Estimates .....	11
2016 Census Profile .....	12
Births and Mortality .....	19
General Health, Risk Factors, and Prevention .....	25
Chronic Conditions .....	27
<b>Human Resources</b>	<b>39</b>
<b>Primary Care</b>	<b>42</b>
Primary Care Enrolment .....	42
Selected Measures from the Health Care Experience Survey .....	42
<b>Community Care</b>	<b>44</b>
<b>Mental Health Services</b>	<b>45</b>
Wait Time for Community Services .....	45
Mental Health and Substance Abuse Emergency Department Visits .....	45
Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility .....	46
<b>Surgery &amp; Diagnostic Imaging</b>	<b>48</b>
Day Surgery and Cardiac Catheterization Utilization .....	48
Surgical & Diagnostic Imaging Wait Times .....	49
<b>Oncology and Dialysis</b>	<b>58</b>
<b>Home Care</b>	<b>62</b>
<b>Palliative Care</b>	<b>65</b>
<b>Emergency Department</b>	<b>69</b>
Emergency Department Utilization .....	69
Emergency Department Performance .....	73
<b>Acute Care</b>	<b>75</b>
Acute Care Utilization by Residents of the North East LHIN .....	75
Acute Care Utilization for North East LHIN Facilities .....	76
Acute Care Inflow/Outflow .....	78
<b>Post-Acute Care</b>	<b>79</b>
Inpatient Rehabilitation Utilization .....	79
Complex Continuing Care Utilization .....	82
<b>Alternate Level of Care</b>	<b>83</b>
Closed ALC Cases .....	84
Open ALC Cases .....	84
Hospital Processes and Capacity .....	86
<b>Long-Term Care</b>	<b>88</b>

## Highlights

Comprehensive information about population demographics, health status, health outcomes, chronic conditions, human resources, primary care, health service utilization, and long-term care in the North East LHIN can be found under the content headings of in the remainder of this document, beginning with the socio-demographic profile. This Highlights introduction is intended to provide a guide to areas in which either the North East LHIN or one of its sub-regions is significantly different from the province as a whole. Sub-region comparisons within this section are always to the other 75<sup>1</sup> sub-regions across the province, and LHIN comparisons are always to the other 13 LHINs.

### North East LHIN

#### Population Characteristics

- North East had the **largest** population decrease between 2011 and 2016, and was the only LHIN to have a projected decrease in population between 2016 and 2026.
- The North East LHIN had the 2<sup>nd</sup> highest proportion of seniors (65+) as well as the 2<sup>nd</sup> highest proportion of residents aged 75+.
- The North East LHIN had the **highest** percentage of residents who report French as their first language.
- The North East LHIN had the **highest** percentage of residents who meet the new inclusive definition of Francophone.
- The North East LHIN had the **lowest** percentage with no knowledge of either official language.
- The North East LHIN had the **lowest** percentage of immigrants.
- The North East LHIN had the **lowest** percentage of recent immigrants.
- The North East LHIN had the **lowest** percentage of first generation Canadians.
- The North East LHIN had the **lowest** percentage of visible minorities.
- The North East LHIN had the second highest percentage of residents reporting Aboriginal identity, after North West.
- The North East LHIN had the **highest** percentage of resident with post-secondary education below bachelor's degree.
- The North East LHIN had the **lowest** percentage of residents with bachelor's degree completion and beyond (16).
- The North East LHIN had the **lowest** percentage of residents participating in the labour force and the **highest** unemployment rate.
- For teenagers, the fertility rate was the 2<sup>nd</sup> highest in the province.
- In FY2016, the North East LHIN had the second highest proportion of women under 20 years of age who gave birth and the **lowest** proportion of women 35 years or older.
- The overall mean age of mothers giving birth in this LHIN was the 2<sup>nd</sup> lowest in the province.
- In 2016, the mean age of mothers at the birth of their first infant in North East was the 2<sup>nd</sup> lowest in the province.
- The multiple live birth rate per 100 live births in 2016 was the 2<sup>nd</sup> lowest rate in the province.
- The epidural rate for vaginal deliveries and for all deliveries were the 2<sup>nd</sup> lowest in the province.
- The North East LHIN had the 2<sup>nd</sup> highest proportion of hospital births attended by a family doctor.

---

<sup>1</sup> Or however many sub-regions have reported data across the province.

- A **significantly lower** proportion of people in the North East LHIN had consulted a family doctor or general practitioner in the past year, compared to Ontario.
- **North East** LHIN residents had the highest rate of day surgery and ambulatory cardiac catheterization visits.
- North East LHIN hospitals had the **highest** increase in active cases in adult designated mental health beds from 2013/14 to 2016/17.
- North East had the 2<sup>nd</sup> highest rate of active home care referrals per 1,000 population.
- The North East LHIN had the **highest** home care service visit rate in 2017/18.
- The North East LHIN had the **highest** percentage of patients who received palliative home services that died in hospital.
- North East LHIN emergency departments had the **smallest** proportion of patients who arrived by ambulance.
- In FY16/17 North East hospitals had the **highest** ratio of ED visits triaged at level IV and V.
- North East LHIN hospitals had the **largest** percentage decrease in acute separations between 2013/14 and 2016/17.
- The North East LHIN had the 2<sup>nd</sup> longest rehabilitation length of stay.

### Strengths

- The North East LHIN had the **lowest** percentage of households with insufficient bedrooms to accommodate the household.
- In 2017/18, 90<sup>th</sup> percentile wait time for cancer surgery was **shortest** in the **North East** LHIN.
- Hospitals in the North East LHIN had the **shortest** wait for consultants to arrive in the emergency department after being requested.
- Emergency departments in the North East LHIN had the **shortest** time to patient disposition and the **shortest** ED length of stay for all patients.
- North East emergency departments provided the **shortest** time to disposition and the **shortest** length of stay for non-admitted high acuity patients, as well as the **highest** percentage of these patients discharged within the target of 8 hours.
- In 2017/18, hospitals in the North East LHIN took the **shortest** time to determine whether to admit patients from the emergency department to an inpatient bed.

### Challenges/Opportunities

- In North East, the primary Caesarean section rate and the total Caesarean section rate were the 2<sup>nd</sup> highest in the province.
- In North East, the proportion of women who self-identified as non-smokers at first prenatal visit and at the time of labour were the 2<sup>nd</sup> lowest in the province.
- The North East LHIN had the 2<sup>nd</sup> highest proportion of mothers who reported using drugs during pregnancy.
- In FY2016, North East hospitals had the 2<sup>nd</sup> highest proportion of pre-term births in the province.
- The full-term low birth weight rate per 100 live births was the 2<sup>nd</sup> highest rate in the province.
- In 2015-16, a **significantly lower** proportion of North East LHIN residents said they had very good or excellent health than Ontarians as a whole.
- The proportion of North East LHIN residents reporting very good or excellent mental health was **significantly lower** than the Ontario rate.
- A **significantly lower** proportion of North East LHIN residents reported having a regular medical doctor than in Ontario overall—the second lowest rate among LHINs.
- The proportion of North East LHIN residents who reported daily or occasional smoking in 2015-16 was the **highest** among LHINs and **significantly higher** than the Ontario rate. The proportion of

people exposed to second hand smoke in the home was also **significantly higher** than the Ontario rate.

- The proportion of residents reporting heavy drinking was **significantly higher** in the North East LHIN than in Ontario overall.
- The proportion of North East LHIN residents who were either overweight or obese was the **highest** of all the LHINs, **significantly higher** than in Ontario overall. The obesity rate was also **significantly higher** than Ontario.
- The prevalence rates for residents with one or more chronic conditions and for two or more chronic conditions were **significantly higher** than Ontario and were the **highest** among the LHINs.
- The North East LHIN had the **highest** prevalence rates of arthritis, hypertension, and heart disease.
- The North East LHIN had the 2<sup>nd</sup> highest prevalence of stroke.
- 2<sup>nd</sup> lowest percentage of residents who report satisfaction with health care in their community.
- **Lowest** percentage of residents who report attachment to a primary care provider.
- The North East LHIN had the 2<sup>nd</sup> lowest percent of residents who reported that they were able to see their provider the same day or next day when they were sick.
- North East LHIN residents had the 2<sup>nd</sup> highest ED visit rates for MH/SA conditions.
- Residents of the North East LHIN had a **significantly higher** rate of unplanned ED visits in the last 30 days of life than the province as a whole. The North East LHIN had the **highest** rate in the province.

## NIPISSING-TEMISKAMING SUB-REGION HIGHLIGHTS

### Population Characteristics

- 5<sup>th</sup> highest percentage both of residents who report French as their mother tongue and who meet the new inclusive definition of Francophone.
- 7<sup>th</sup> lowest percentage of residents who report no knowledge of English or French.
- 3<sup>rd</sup> lowest percentage residents who were immigrants.
- 5<sup>th</sup> lowest percentage of residents who were recent immigrants.
- 5<sup>th</sup> lowest percentage of residents who were first generation Canadian.
- 2<sup>nd</sup> highest percentage of residents with post-secondary education below bachelor's degree.
- 6<sup>th</sup> lowest percentage of residents participating in the labour force.
- 7<sup>th</sup> lowest overall mean age of mothers giving birth in the province.
- Among the eight sub-regions with the highest total home service visit rates in 2017/18.
- 5<sup>th</sup> highest percentage of patients receiving palliative care who died in hospital in 2016/17.
- 7<sup>th</sup> highest percentage of patients with two or more acute inpatient admissions in the last 30 days of life.
- Among the highest acute separation rates from acute hospital beds in 2016/17.
- Among the highest rates of acute care days per 1,000 residents in 2016/17.

### Strengths

- 6<sup>th</sup> lowest percentage of households with an insufficient number of bedrooms to accommodate household size.

### Challenges/Opportunities

- 7<sup>th</sup> highest percentage of dwellings in need of major repairs.
- 7<sup>th</sup> highest percentage of residents age 15+ who were unemployed.
- 8<sup>th</sup> highest full-term low birth weight rate in the province.
- Very good or excellent health was significantly less prevalent in the Nipissing-Temiskaming sub-region than in Ontario.
- Compared to Ontario, the proportion of people with a regular medical doctor was **significantly lower**.
- **Significantly higher** smoking rate compared to Ontario.
- **Significantly higher** prevalence rate than Ontario of arthritis and hypertension than Ontario.
- **Significantly higher** prevalence rates for diabetes and heart disease than Ontario.
- Among the 8 sub-regions with the highest hospitalization rates for cardiovascular disease, diabetes, hypertension, and ischemic heart disease.
- Among the 8 sub-regions with the highest mean cost per user and highest mean cost per complex patient (4+ conditions).
- Among the 8 sub-regions with the highest percentage of high cost healthcare users.
- Among the highest 8 Ontario sub-regions for the rate of acute separations per 1,000 residents.
- Ranked among the highest 8 Ontario sub-regions for the rate of acute days per 1,000 residents.
- 6<sup>th</sup> lowest percentage of residents who were satisfied with health care in their community.



## SUDBURY-MANITOULIN-PARRY SOUND SUB-REGION HIGHLIGHTS

### Population Characteristics

- 4<sup>th</sup> highest percentage of both residents who report French as their mother tongue and who meet the new inclusive definition of Francophone.
- 6<sup>th</sup> highest percentage of residents with post-secondary education below bachelor's degree.
- Among the eight highest sub-regions in total home service visit rates in 2017/18.
- Residents of Sudbury-Manitoulin-Parry Sound had the 3<sup>rd</sup> highest mental health active case rate.

### Strengths

- Sudbury-Manitoulin-Parry Sound was not significantly different from the rest of Ontario in any areas of strength.

### Challenges/Opportunities

- Compared to Ontario, the proportion of people with a regular medical doctor was **significantly lower** in Sudbury-Manitoulin-Parry Sound.
- **Significantly higher** smoking rate compared to Ontario.
- The overweight or obesity rate was **significantly higher** than Ontario.
- **Significantly higher** prevalence rate for arthritis, diabetes, hypertension, and heart disease than Ontario.
- Among the 8 sub-regions with the highest hospitalization rates for hypertension and ischemic heart disease.
- 3<sup>rd</sup> lowest percentage of residents who were able to see their provider the same day or next day when they were sick.
- 7<sup>th</sup> highest percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days.

## ALGOMA SUB-REGION HIGHLIGHTS

### Population Characteristics

- According to the census, Algoma had the 8<sup>th</sup> greatest decrease in population between 2011 and 2016.
- 7<sup>th</sup> lowest population density.
- 7<sup>th</sup> highest proportion of residents aged 75+.
- 8<sup>th</sup> highest percentage of residents reporting Aboriginal identity.
- 8<sup>th</sup> lowest percentage of residents participating in the labour force.
- 8<sup>th</sup> highest fertility rate for teenagers in the province.
- 6<sup>th</sup> highest rate for all-cause mortality.
- Among the eight highest sub-regions in total home service visit rates in 2017/18.
- Among the eight lowest sub-regions in nursing visit rates in 2017/18.
- 4<sup>th</sup> longest rehabilitation length of stay.
- Residents of Algoma had the 2<sup>nd</sup> highest mental health active case rate

### Strengths

- 3<sup>rd</sup> lowest percentage of households with an insufficient number of bedrooms to accommodate household size.
- 8<sup>th</sup> lowest percentage of participants in the labour force with a commuting duration of 60 minutes and over.
- 5<sup>th</sup> lowest percentage of residents who went to a walk in clinic for something that could have been treated by a primary care provider if they were available.

### Challenges/Opportunities

- 4<sup>th</sup> highest percentage of residents who were unemployed.
- 4<sup>th</sup> highest low birth weight rate in the province.
- **Highest** pre-term birth rate in the province.
- Compared to Ontario, the proportion of residents consuming fewer than 5 servings of fruits or vegetables per day was **significantly higher** in Algoma.
- **Significantly higher** prevalence rate for arthritis than Ontario.
- Among the 8 sub-regions with the highest hospitalization rates for cardiovascular disease and ischemic heart disease.
- Among the 8 sub-regions with the highest mean healthcare cost per user.
- Among the 8 highest sub-regions with the highest percentage of complex patients (4+ conditions).
- Among the 8 highest sub-regions with the highest percentage of high cost healthcare users.
- 4<sup>th</sup> highest mean length of stay for inpatient rehabilitation.
- 8<sup>th</sup> highest rate among Ontario sub-regions for potential years of life lost rate.
- 8<sup>th</sup> lowest percentage of residents who were satisfied with health care in their community.
- 8<sup>th</sup> lowest percentage of residents who were able to see their provider the same day or next day when they were sick.
- 4<sup>th</sup> highest percentage of residents who found it difficult to access care after-hours without going to an emergency department.

## COCHRANE SUB-REGION HIGHLIGHTS

### Population Characteristics

- According to the census, Cochrane had 3<sup>rd</sup> greatest decrease in population between 2011 and 2016.
- 4<sup>th</sup> lowest population density.
- **Cochrane** had the **highest** percentage among Ontario's sub-regions both of residents who report French as their mother tongue and who meet the new inclusive definition of Francophone.
- 2<sup>nd</sup> lowest percentage residents who were immigrants.
- 3<sup>rd</sup> lowest percentage of residents who were first generation Canadian.
- 5<sup>th</sup> lowest percentage of residents who were visible minorities.
- 7<sup>th</sup> highest percentage of people age 65+ living alone.
- 4<sup>th</sup> highest percentage of residents with post-secondary education below bachelor's degree.
- 7<sup>th</sup> lowest percentage of residents with bachelor's degree completion and beyond.
- 6<sup>th</sup> lowest overall mean age of mothers giving birth in the province.
- 7<sup>th</sup> highest fertility rate for teenagers in the province.
- 8<sup>th</sup> lowest mean age of mothers at the birth of their first infant in the province.
- 4<sup>th</sup> lowest multiple live birth rate in the province.
- Among the eight sub-regions with the lowest service hour rates for personal support.
- 7<sup>th</sup> highest percentage of residents who died in hospital (tied with **North York West**).
- **Highest** percentage of patients who receive palliative care who died in hospital in 2016/17.
- 7<sup>th</sup> lowest rate of palliative home visits in the last 90 days of life in 2016/17.
- Residents of **Cochrane** had the 4<sup>th</sup> highest mental health active case rate.
- Among the highest acute separation rates from acute hospital beds in 2016/17.
- Among the highest rates of acute care days per 1,000 residents in 2016/17.
- 6<sup>th</sup> longest rehabilitation length of stay.

### Strengths

- **Cochrane** was not significantly different from the rest of Ontario in any areas of strength.

### Challenges/Opportunities

- Compared to Ontario, the proportion of people with a regular medical doctor was **significantly lower** in **Cochrane**.
- The smoking rate was **significantly higher** than Ontario.
- The overweight or obesity rate was **significantly higher** than Ontario.
- Among the 8 sub-regions with the highest hospitalization rates for asthma, cardiovascular disease, chronic obstructive pulmonary disease, ischemic heart disease, lower respiratory disease, and respiratory disease.
- Ranked among the highest 8 Ontario sub-regions for the rate of acute separations and acute days per 1,000 residents.
- 7<sup>th</sup> lowest percentage of residents who were satisfied with health care in their community.
- 5<sup>th</sup> lowest percentage of residents who were able to see their provider the same day or next day when they were sick.
- 5<sup>th</sup> highest percentage of residents who went to ED for something that could have been treated by a primary care provider.
- **Cochrane** residents had the 6<sup>th</sup> highest ED visit rate for MH/SA conditions.
- 4<sup>th</sup> highest percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days.
- Residents of **Cochrane** spent substantially fewer days at home in the last six months of life than Ontarians in general.

- 2<sup>nd</sup> highest percent of residents with one or more unplanned ED visits in the last 30 days of life.
- In 2017/18, residents of **Cochrane** waited the 7<sup>th</sup> longest before being discharged from hospital with an ALC designation (closed cases).

## JAMES AND HUDSON BAY COASTS SUB-REGION HIGHLIGHTS

### Population Characteristics

- **Smallest** population of all Ontario sub-regions.
- According to the census, **James and Hudson Bay Coasts** had the 2<sup>nd</sup> highest population growth between 2011 and 2016.
- 2<sup>nd</sup> lowest percentage of population aged 65+ and aged 75+.
- 2<sup>nd</sup> highest dependency ratio.
- **Lowest** population density of all Ontario sub-regions.
- **Lowest** percentage both of residents who report French and who meet the new inclusive definition of Francophone as their mother tongue among Ontario's sub-regions.
- **Lowest** percentage of residents who were immigrants.
- **Lowest** percentage of residents who were first generation Canadian.
- 3<sup>rd</sup> lowest percentage of residents who were visible minorities.
- **Highest** percentage of residents reporting Aboriginal identity.
- 8<sup>th</sup> lowest percentage of people age 65+ living alone.
- 6<sup>th</sup> lowest percentage of residents with only high school completion.
- 2<sup>nd</sup> highest percentage of residents with less than high school.
- 2<sup>nd</sup> lowest percentage of residents with bachelor's degree completion and beyond.
- 2<sup>nd</sup> lowest percentage of residents participating in the labour force.
- **Highest** crude birth rate in the province.
- **Highest** fertility rate for teenagers in the province.
- **Highest** fertility rates for 15-49 year olds in the province.
- **Lowest** overall mean age of mothers giving birth in the province.
- **Lowest** mean age of mothers at the birth of their first infant in the province.
- Among the eight lowest sub-regions in total home service visit rates in 2017/18.
- Among the eight highest sub-regions in nursing visit rates in 2017/18.
- In 2017/18, \***James and Hudson Bay Coasts** did not report personal support hours.
- **Highest** crude ED visit rate, more than 70% higher than the next highest sub-region, and over 5 times the provincial rate.
- **Highest** percent of residents with one or more unplanned ED visits in the last 30 days of life.
- **Highest** percentage of patients with two or more acute inpatient admissions in the last 30 days of life.
- **Highest** percentage of residents who died in hospital.
- **Lowest** rate of palliative home visits in the last 90 days of life in 2016/17.
- Residents of **James and Hudson Bay Coasts** spent substantially fewer days at home in the last six months of life than Ontarians in general.
- Among the highest acute separation rates from acute hospital beds in 2016/17.
- Among the highest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- Residents of **James and Hudson Bay Coasts** had among the highest rates of acute care days per 1,000 residents in 2016/17.
- Residents of **James and Hudson Bay Coasts** had the **highest** mental health active case rate.
- Among the longest acute length of stay in acute hospital beds in 2016/17.
- 2<sup>nd</sup> lowest rehabilitation admission rate per 100,000 population in FY16/17.

### Strengths

- **Lowest** percentage of residents spending 30% or more of household income on rent or payments.

- 3<sup>rd</sup> lowest percentage of participants in the labour force with a commuting duration of 60 minutes and over.
- **Lowest** small for gestational age rate in the province.
- Among the 8 sub-regions with the lowest percentage of complex patients (4+ conditions).
- 7<sup>th</sup> lowest pre-term birth rate in the province
- 2<sup>nd</sup> lowest inpatient rehabilitation admission rate.
- At the end of 2017/18, there were no residents of **James and Hudson Bay Coasts** designated ALC in any Ontario hospital.

### Challenges/Opportunities

- **Highest** percentage of dwellings in need of major repairs of all Ontario sub-regions.
- 2<sup>nd</sup> highest percentage of households with an insufficient number of bedrooms to accommodate household size.
- 7<sup>th</sup> highest percentage population living below the low-income measure.
- 3<sup>rd</sup> highest percentage of children under 6 living in low-income households.
- 2<sup>nd</sup> highest percentage of children under 18 living in low-income households.
- 4<sup>th</sup> highest percentage of seniors (65+) living in low-income households.
- Of all Ontario sub-regions, **James and Hudson Bay Coasts** had the **highest** rate of unemployment.
- **Highest** large for gestational age rate in the province.
- Among the 8 sub-regions with the highest hospitalization rates for asthma.
- **Highest** hospitalization rates of all 76 sub-regions for cardiovascular disease, cerebrovascular disease, chronic obstructive pulmonary disease, diabetes, ischemic heart disease, lower respiratory disease, respiratory disease, and stroke.
- **Highest** mean healthcare cost per user.
- **Highest** mean cost per complex patient.
- **Highest** percentage of high cost healthcare users.
- Among the 8 sub-regions with the highest mean cost per high cost healthcare user.
- Among the highest 8 Ontario sub-regions for the rate of acute separations per 1,000 residents.
- **Highest** among Ontario sub-regions for both total and acute lengths of stay.
- 2<sup>nd</sup> highest all-cause potential years of life lost rate.
- 6<sup>th</sup> highest ED visit rate for MH/SA conditions.
- 3<sup>rd</sup> highest percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days.

## Population Characteristics

### Population Estimates<sup>2</sup>

- As of 2016, the population of the North East LHIN is estimated to be 562,346, a 1.4% decrease from 2011.
  - The populations 65 and over and 75 and over represent 20% and 9% of the total population respectively.
- The population of the North East LHIN is projected to increase by 0.1% by 2021 but to decrease by 0.3% by 2026.

### Population Estimates from 2016 Census and Ministry of Finance

	Ontario	North East	Comments†
2011 Census, total population	12,851,821	553,091	
2016 Census, total population	13,448,494	551,801	
Population growth between 2011 and 2016 (based on Census)	4.6%	-0.2%	
Estimated population, 2011	13,263,544	570,537	
<b>Estimated population, 2016</b>	<b>13,982,984</b>	<b>562,346</b>	
% population age 65+	16.38%	20.36%	<i>2<sup>nd</sup> highest</i>
% population age 75+	7.17%	8.86%	<i>2<sup>nd</sup> highest</i>
<b>% population change estimated 2011-2016</b>	<b>5.4%</b>	<b>-1.4%</b>	<b>Lowest</b>
Projected population, 2021	14,980,422	563,135	
Projected population, 2026	15,822,463	560,658	
% changes (based on changes from the 2016 estimates)			
% population change forecasted 2016-2021	7.1%	0.1%	<b>Lowest</b>
% population change forecasted 2016-2026	13.2%	-0.3%	<b>Lowest</b>

Sub-Region Name	Total population	Age 65plus	% 65+	Age 75plus	% 75+
Nipissing-Temiskaming	144,076	30,723	21.32%	13,321	9.25%
Sudbury-Manitoulin-Parry Sound	229,164	47,034	20.52%	19,965	8.71%
Algoma	102,117	22,062	21.60%	10,384	10.17%
Cochrane	79,388	14,130	17.80%	5,945	7.49%
James and Hudson Bay Coasts	7,602	536	7.05%	186	2.44%

<sup>2</sup> Please see note in Ontario chapter on Census versus Ministry of Finance estimates.

### Census Demographics

- 15.1% of the population was in the age group 0-14 and 64.2% was in the age group 15-64.
- The dependency ratio in North East at 70.2 was higher than the province (64.5).
- None of North East's population lived in large urban communities.
- The largest proportion of North East's population (52.7%) lived in medium/small population centre communities.
- 13.6% of North East's population lived in rural or small communities adjacent to urban areas communities.
- 33.7% of North East's population lived in rural and small town communities.
- North East's land mass measures 395,920 square kilometres making it the 2<sup>nd</sup> largest in the province.
- North East's population density was 1.4 persons per square kilometre making it the 2<sup>nd</sup> least densely populated LHIN in the province.

### Households

- In 2016, 107,020 households contained one or more family members aged 65 years and over. 28.0% of those individuals were living alone.
  - By sub-region, **Cochrane** had the highest rate of seniors living alone (31.9%) and **James and Hudson Bay Coasts** had the lowest (16.1%).
  - **Algoma** had the highest rate of one person households (30.9%) and **James and Hudson Bay Coasts** had the lowest (18.5%)
  - **James and Hudson Bay Coasts** had the highest rate of 5 or more person households (31.7%) and **Algoma** had the lowest (4.8%).
- In 2016, 85,255 families with children were living within the boundaries of the North East LHIN. 32.1% of those families were lone parent.
  - By sub-region, **James and Hudson Bay Coasts** had the highest rate of lone-parent families (44.3%) and **Cochrane** had the lowest (29.6%)
- The total number of owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio was 231,590. 21.8% of those households spent 30% or more of their income on rent or payments.
  - By sub-region, **Nipissing-Temiskaming** had the highest rate (24.9%) and **James and Hudson Bay Coasts** had the lowest (9.3%).
- The total number of private households was 239,300. 70.0% of those were owner occupied, 29.3% were rented, and 0.7% were band housing.
  - By sub-region and owner occupation rate, **Algoma** had the highest rate (72.7%) with **James and Hudson Bay Coasts** having the lowest (30.3%).
- 9.3% of the private households in the North East were in need of major repair, the 2<sup>nd</sup> highest in the province.
  - By sub-region and housing in need of repair rate, **James and Hudson Bay Coasts** had the highest rate (44%) and **Algoma** had the lowest (8.3%).
- 2.5% of the private households in the North East LHIN had an insufficient number of bedrooms to accommodate the household makeup. This was the **lowest** in the province.
  - By sub-region and housing suitability, **James and Hudson Bay Coasts** had the highest rate of unsuitable housing (21.3%) and **Algoma** had the lowest (2.0%).



## Language

- In 2016, 72.8% of the population reported English as their mother tongue. 22.3% of North East LHIN residents reported French as their mother tongue, the highest proportion in the province.
  - By sub-region, **Algoma** had the highest proportion (87.2%) and **Cochrane** had the lowest proportion of residents who identified English as their mother tongue (51.1%).
  - By sub-region, **Cochrane** had the highest proportion (47.1%) of residents who identified French as their mother tongue. **James and Hudson Bay Coasts** sub-region had the lowest proportion (0.5%).
- 0.2% of the LHIN's population reported no knowledge of either official language, the lowest rate in the province.
  - By sub-region, **James and Hudson Bay Coasts** reported the highest proportion of no knowledge of English or French (1.6%). **Cochrane** sub-region and **Nipissing-Temiskaming** sub-region had the lowest (0.1%).
- In 2016, 22.5% of North East LHIN residents were Francophone under the 2009 new Inclusive Definition of Francophone. This was the **highest** proportion in the province.
  - By sub-region, **Cochrane** had the highest proportion of Francophone residents (47.3%). **James and Hudson Bay Coasts** sub-region had the lowest (0.5%).
- 83.7% of LHIN's population reported English was the language spoken most often at home, followed by French (12.1%), English and French (1.2%), English and a non-official language (0.8%) and Cree-Montagnais languages (0.4%).

## Income

- In the North East LHIN, 14.9% of the population lived on low income, based on the after-tax low income measure (LIM-AT).
  - The proportion of residents living below the low income measure varied by sub-region, from 13.6% in the **Sudbury-Manitoulin-Parry Sound** sub-region to 20.9% in the **James and Hudson Bay Coasts** sub-region.
  - The proportion of households in the lowest income quintile ranged across sub-regions in the North East LHIN, from 19.1% in the **Algoma** sub-region to 45.2% in the **James and Hudson Bay Coasts** sub-region.
- In the North East LHIN, 22.3% of children under the age of 6 lived in low income households.
  - By sub-region, children living in low income households ranged from 20.6% in the **Sudbury-Manitoulin-Parry Sound** sub-region to 33.3% in the **James and Hudson Bay Coasts** sub-region.
  - The proportion of households in the highest income quintile varied across sub-regions in the North East LHIN, from 15.9% in the **Nipissing-Temiskaming** sub-region to 21.1% in the **Cochrane** sub-region.

## Immigration

- In 2016, immigrants accounted for 5.5% of the North East LHIN population, the lowest proportion in the province. From 1980 to 2016, 45.7% of immigrants were admitted as economic immigrants, 42.9% were sponsored by family and 10.6% were admitted as refugees. 0.4% of North East LHIN residents were **recent immigrants**, having arrived in Canada between 2011 and 2016. This was the lowest proportion of recent immigrants in the province. Of the recent immigrants, the highest proportion came from India (17.7%), followed by the United States (10.6%) and the Philippines (8.6%).
  - Among the five North East LHIN sub-regions, the percentage of immigrants ranged from 2.7% in **James and Hudson Bay Coasts** to 7.9% in **Algoma**.

- The percentage of recent immigrants ranged from 0.3% in **Nipissing-Temiskaming** to 1.2% in **James and Hudson Bay Coasts**.
- In 2016, 6.0% of the North East LHIN population were **first generation Canadians**, the lowest proportion in the province.
  - Among the five North East LHIN sub-regions, the percentage of first generation Canadians ranged from 1.4% in **James and Hudson Bay Coasts** to 8.6% in **Algoma**.

### Visible Minorities

- In 2016, 2.4% of the North East LHIN population was a visible minority, the lowest proportion in the province.
  - Among the five North East LHIN sub-regions, the percentage of visible minorities ranged from 1.3% in **James and Hudson Bay Coasts** to 3.1% in **Sudbury-Manitoulin-Parry Sound**.

### Indigenous (Aboriginal) Identity

- 13.4% of the North East LHIN's residents identified as Aboriginal (the second highest proportion in the province), with 8.3% identifying as First Nations and 4.8% as Métis.
  - Among the five North East LHIN sub-regions, the percentage of residents reporting Aboriginal identity ranged from 11.3% in **Nipissing-Temiskaming** to 93.4% in **James and Hudson Bay Coasts**.

### Education

- In 2016, 16.9% of North East LHIN residents of working age had completed post-secondary education, ranking 14<sup>th</sup> across the province.
  - Across North East sub-regions, the percentage of the population with less than high school ranged from 11.0% in **Algoma** to 41.3% in **James and Hudson Bay Coasts**.
  - The percentage of the population with high school completion ranged from 18.1% in **James and Hudson Bay Coasts** to 28.3% in **Algoma**.
  - The percentage of the population with post-secondary education below bachelor's degree ranged from 31.9% in **James and Hudson Bay Coasts** to 44.6% in **Nipissing-Temiskaming**.
  - The percentage of the population with bachelor's degree completion and beyond ranged from 9.1% in **James and Hudson Bay Coasts** to 19.4% in **Algoma**.

### Labour Force Participation

- In 2016, the unemployment rate for North East LHIN residents aged 15+ was 9.4%, the **highest** of all the LHINs, while the labour force participation rate was the **lowest** of all the LHINs (59%).
- Of those employed in 2016, 22% (the 3<sup>rd</sup> lowest of all of the LHINs) of North East LHIN residents had a commute time from their residence to their place of work of 30 minutes or more, while 9.4% (the 3<sup>rd</sup> lowest of all of the LHINs) had a commute time of 45 minutes or more.

2016 Census Profile	Ontario	North East	Comments†
<b>Census Population 2016</b>			
Dependency ratio (number of "dependents" for every 100 "workers")	64.5	70.2	
<b>Urban-Rural Gradient</b>			
% large urban	68.1%	0.0%	Lowest (tied)
% medium/small population centre	14.7%	52.7%	Highest
% rural or small communities adjacent to urban areas	8.4%	13.6%	
% rural and small town	8.8%	33.7%	2 <sup>nd</sup> highest
Land Area (sq km)	908,699	395,920	2 <sup>nd</sup> highest
Population Density (persons per square kilometre)	14.8	1.4	2 <sup>nd</sup> lowest
<b>Population by Household and Families</b>			
% of people age 65+ living alone	23.5%	28.0%	
% of dwellings in need of major repairs	6.1%	9.3%	2 <sup>nd</sup> highest
% of households with an insufficient # of bedrooms	6.0%	2.5%	Lowest
<b>Language</b>			
% who report English as their mother tongue	69.5%	72.8%	
% who report French as their mother tongue	4.3%	22.3%	Highest
% with no knowledge of English or French	2.5%	0.2%	Lowest
% Francophone (IDF)	4.7%	22.5%	Highest
<b>Population (in Private Households) Living in Low Income</b>			
% Population living below low-income measure (LIM-AT)	14.4%	14.9%	
% Children living in low income households/LIM (age<6)	19.8%	22.3%	2 <sup>nd</sup> highest
% Children living in low income households/LIM (age<18)	18.4%	18.9%	
% Seniors living in low income households/LIM (age 65+)	12.0%	13.3%	
<b>Immigration</b>			
% of population who are immigrants	29.1%	5.5%	Lowest
% of population who arrived within 5 years	3.6%	0.4%	Lowest
% first generation Canadian (children of immigrants)	31.1%	6.0%	Lowest
<b>Visible Minorities</b>			
% of population who are visible minorities	29.3%	2.4%	Lowest
<b>Indigenous Identity</b>			
% of population of Aboriginal identity	2.8%	13.4%	2 <sup>nd</sup> highest
% population First Nations identity	1.8%	8.3%	
% population Metis identity	0.9%	4.8%	
% population Inuk identity	0.0%	0.0%	
% Multiple Aboriginal responses	0.0%	0.1%	
% Aboriginal responses not included elsewhere	0.1%	0.2%	
<b>Educational Attainment</b>			
% Population age 25-64 with less than high school	10.4%	13.6%	2 <sup>nd</sup> highest
% Population age 25-64 with high school completion	24.5%	26.2%	
% Population age 25-64 with post-secondary education below bachelor's degree	33.2%	43.4%	Highest
% Population age 25-64 with bachelor's degree completion and beyond	31.9%	16.9%	Lowest
<b>Labour Force Activity</b>			
% In the labour force (Participation rate)	64.7%	58.6%	Lowest
% Unemployed	7.4%	9.4%	Highest
% 60 minutes and over commuting duration	12.4%	4.9%	

†Highest/lowest ranking in the province, compared to other LHINs.

## Sub-Region Profiles, 2016 Census

Sub-region	Nipissing- Temiskaming	Sudbury- Manitoulin- Parry Sound	Algoma	Cochrane	James and Hudson Bay Coasts
<b>Census Population 2016</b>					
Dependency ratio (number of "dependents" for every 100 "workers")	71.4	69.9	71.3	66.4	85.5
<b>Urban-Rural Gradient</b>					
% large urban	0.0%	0.0%	0.0%	0.0%	0.0%
% medium/small population centre	37.1%	61.5%	65.9%	43.2%	0.0%
% rural or small communities adjacent to urban areas	13.4%	16.4%	11.8%	9.8%	0.0%
% rural and small town	49.5%	22.1%	22.3%	46.9%	100.0%
Land Area (sq km)	33,761	35,880	32,495	84,118	209,667
Population Density (persons per square kilometre)	4.1	6.3	3.1	0.9	0.0
<b>Population by Household and Families</b>					
% of people age 65+ living alone	27.6%	27.3%	28.0%	31.9%	16.1%
% Of dwellings in need of major repairs	9.8%	8.7%	8.3%	9.4%	44.0%
% of households with an insufficient # of bedrooms	2.2%	2.5%	2.0%	2.4%	21.3%
<b>Language</b>					
% who report English as their mother tongue	77.0%	72.0%	87.2%	51.1%	55.3%
% who report French as their mother tongue	20.8%	22.9%	5.6%	47.1%	0.5%
% with no knowledge of English or French	0.1%	0.2%	0.4%	0.1%	1.6%
% Francophone	20.9%	23.1%	5.6%	47.3%	0.5%
<b>Population (in Private Households) Living in Low Income</b>					
% Population living below low-income measure (LIM-AT)	17.1%	13.6%	15.3%	13.9%	20.9%
% Children living in low income households/LIM (age<6)	23.7%	20.6%	24.1%	21.0%	33.3%
% Children living in low income households/LIM (age<18)	20.6%	17.2%	21.0%	18.0%	29.6%
% seniors living in low income households/LIM (age 65+)	16.5%	11.3%	11.6%	15.8%	19.2%
<b>Population by Income Quintiles</b>					
% Economic families in Income quintile 1 - lowest income	23.7%	19.5%	21.1%	19.1%	45.2%
% Economic families in Income quintile 2	21.3%	18.8%	20.8%	18.0%	19.4%
% Economic families in Income quintile 3	20.1%	19.4%	19.5%	18.9%	13.9%
% Economic families in Income quintile 4	19.1%	21.4%	20.9%	22.9%	10.5%
% Economic families in Income quintile 5 - highest income	15.9%	20.8%	17.7%	21.1%	11.1%

Sub-region	Nipissing- Temiskaming	Sudbury- Manitoulin- Parry Sound	Algoma	Cochrane	James and Hudson Bay Coasts
<b>Immigration</b>					
% of population who are immigrants	4.6%	6.0%	7.9%	3.0%	2.7%
% of population who arrived within 5 years	0.3%	0.5%	0.4%	0.4%	1.2%
% first generation Canadian (children of immigrants)	5.0%	6.6%	8.6%	3.2%	1.4%
<b>Visible Minorities</b>					
% of population who are visible minorities	2.0%	3.1%	2.4%	1.6%	1.3%
<b>Indigenous Identity</b>					
% of population of Aboriginal identity	11.3%	12.5%	12.9%	12.5%	93.4%
% population First Nations identity	6.1%	7.5%	7.5%	6.9%	92.7%
% population Metis identity	4.7%	4.7%	5.0%	5.3%	0.5%
% population Inuk identity	0.0%	0.0%	0.0%	0.1%	0.1%
% Multiple Aboriginal responses	0.2%	0.1%	0.2%	0.1%	0.0%
% Aboriginal responses not included elsewhere	0.3%	0.2%	0.1%	0.2%	0.1%
<b>Educational attainment</b>					
% Population age 25-64 with less than high school	14.0%	12.4%	11.0%	16.9%	41.3%
% Population age 25-64 with high school completion	26.0%	25.6%	28.3%	26.6%	18.1%
% Population age 25-64 with post-secondary education below bachelor's degree	44.6%	43.5%	41.4%	44.2%	31.9%
% Population age 25-64 with bachelor's degree completion and beyond	15.4%	18.6%	19.4%	12.2%	9.1%
<b>Labour Force Activity</b>					
% In the labour force (Participation rate)	57.0%	59.4%	57.1%	61.2%	54.1%
% Unemployed	9.6%	8.9%	10.3%	8.9%	19.2%
% 60 minutes and over commuting duration	6.1%	4.5%	3.2%	6.2%	1.5%

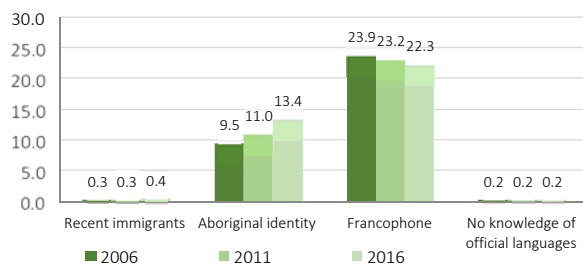
## North East

### 2016 Census Profile Summary

#### Number of private dwellings

2006	279,116
2011	281,611
2016	289,641

#### Immigration, identity and language (% of population)

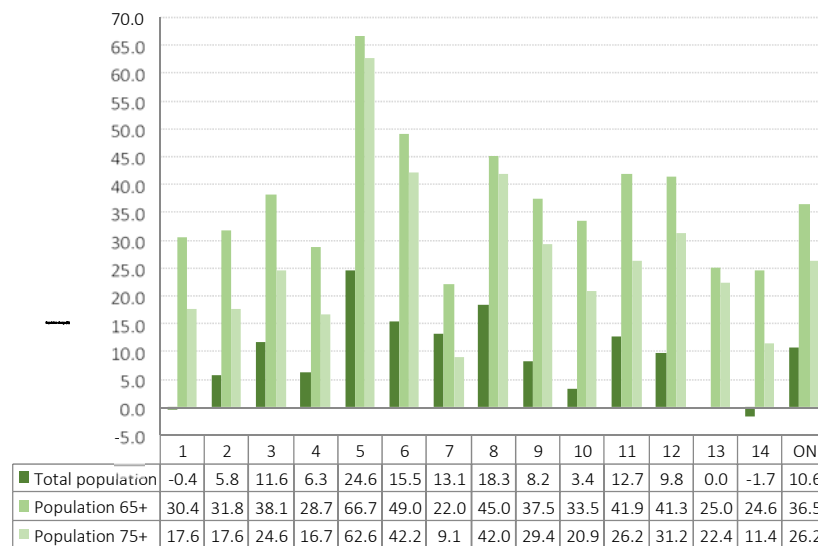


#### Population change (2006-2016)

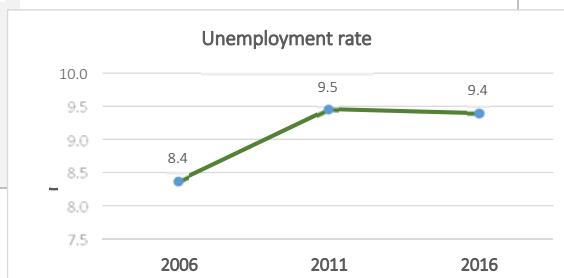
The growth of the senior (65+) population across LHINs ranged from 67% in Central West to 22% in Toronto Central.

The growth of the population age 75+ in North East between 2006 and 2016 was 22.4%, compared to 26.2% for the province as a whole. Total LHIN population growth was 0% for the same period.

#### Population change, 2006 to 2016, by LHIN

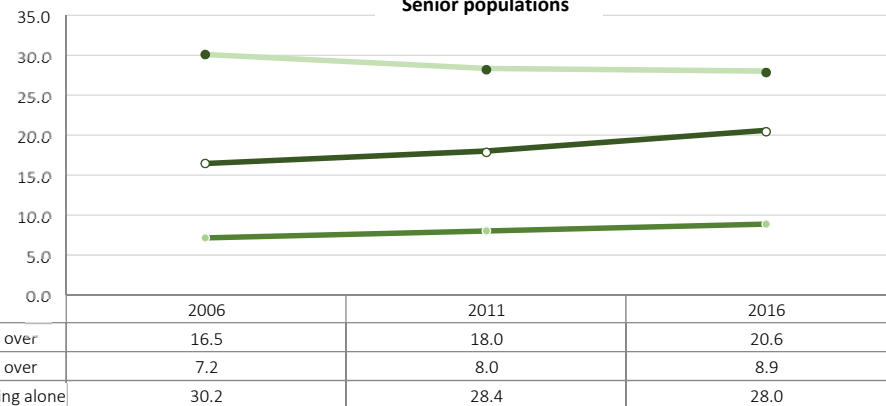


#### Change in unemployment rate, 2006 to 2016 = 12.3%



○ % population age 65 and over	2006	2011	2016
● % population age 75 and over	16.5	18.0	20.6
● % population age 65+ living alone	7.2	8.0	8.9
	30.2	28.4	28.0

#### Senior populations



## Births and Mortality

### Births and Maternal Age

- In FY 2016/17, there were 5,203 pregnancies and 5,280 births to North East women. 96% of births took place in a hospital; the remaining 4% were in the home, birth centre or other (including nursing stations, births outside of Ontario and other Ontario locations).
- In 2016, the crude birth rate (per 1,000 population) in North East was 9.3.
  - By sub-region, **James and Hudson Bay Coasts** had the **highest** crude birth rate in the province (20.6).
- The fertility rate per 1,000 North East females of reproductive age (15 to 49) was 45.5.
  - By sub-region, **James and Hudson Bay Coasts** had the **highest** fertility rates for 15-49 year olds in the province (83.9).
- For teenagers (15 to 19), the fertility rate per 1,000 North East females was 18.4, the 2<sup>nd</sup> highest rate in the province.
  - By sub-region, **James and Hudson Bay Coasts**, **Cochrane** and **Algoma** have the **highest**, 7<sup>th</sup> highest and 8<sup>th</sup> highest fertility rates for teenagers in the province (71.6, 17.9 and 17.4, respectively).
- In FY2016, 5.6% of women who gave birth were under 20 years of age, the second highest proportion in the province. 12.0% of women were 35 years or older, the **lowest** proportion in the province.
- The overall mean age of mothers giving birth in this LHIN was 28.1, the 2<sup>nd</sup> lowest overall mean age in the province.
  - By sub-region, **James and Hudson Bay Coasts**, **Cochrane** and **Nipissing-Temiskaming** had the **lowest**, 6<sup>th</sup> lowest and 7<sup>th</sup> lowest overall mean age in the province (25.3, 27.8 and 28.1, respectively).
- In 2016, the stillbirth rate per 1,000 live births in North East was 9.3.
  - By sub-region, **Algoma** had the 5<sup>th</sup> lowest stillbirth rate in the province (5.5).

### Multiple Births

- The multiple live birth rate per 100 live births in 2016 was 2.7, the 2<sup>nd</sup> lowest rate in the province.
  - By sub-region, **Cochrane** had the 4<sup>th</sup> lowest multiple live birth rate in the province (1.5).

### Pre-Term Births

- In 2016, the pre-term birth rate per 100 live births was 8.5.
  - By sub-region, **Algoma** had the highest pre-term birth rate in the province (10.8). **James and Hudson Bay Coasts** had the 7<sup>th</sup> lowest rate in the province (6.4).

### Size for Gestational Age and Birth Weight

- The low birth weight rate per 100 live births in North East was 7.1.
  - By sub-region, **Algoma** had the 4<sup>th</sup> highest low birth weight rate in the province (9.0).
- In 2016, the small for gestational age rate per 100 live births was 9.2.
  - By sub-region, **James and Hudson Bay Coasts** had the **lowest** small for gestational age rate in the province (3.3).
- In 2016, the large for gestational age rate per 100 live births was 12.0.
  - By sub-region, **James and Hudson Bay Coasts** had the **highest** large for gestational age rate in the province (35.3).

### Attendants, Assisted Delivery & Epidural Anaesthesia during Labour

- In North East, 69.3% of hospital births were attended by an obstetrician. 16.1% of births were attended by a family doctor, the 2<sup>nd</sup> highest proportion in the province and 11.1% were attended by a midwife.

- Among vaginal deliveries, the overall assisted delivery rate for North East women was 9.7. Assisted vaginal delivery rates using vacuum extraction and using forceps were 7.3 and 1.9.
- The epidural rate for vaginal deliveries was 51.0 and for all deliveries, 41.8. Both rates were the 2<sup>nd</sup> lowest rates in the province.

#### Caesarean Deliveries

- In FY 2016/17, the total Caesarean section rate per 100 deliveries was 30.5, the 2<sup>nd</sup> highest rate in the province.
- The rate of primary Caesarean section rate (the mother's first Caesarean, regardless if she had given birth vaginally before) was 20.9 per 100 deliveries, the 2<sup>nd</sup> highest rate in the province. Primary Caesarean section rate was lower in women under 35 years of age (20.2) compared to those 35 and over (26.2).
- The rate of repeat Caesarean sections in North East was 86.5 per 100 deliveries, the 3<sup>rd</sup> highest rate in the province.

#### Breastfeeding

- The rate of exclusive breastfeeding at discharge among term live births in this LHIN was 62.2%.



## Births and Maternal Outcomes, Ontario

	North East	Ontario	Comments <sup>†</sup>
Total births in Ontario, LHIN of maternal residence	5,280	141,163	
Hospital	5,092	136,505	
Home	132	3,813	
Birth Centre	0	572	
Crude birth rate (per 1,000 population)	9.3	9.8	
Stillbirth rate (per 1,000 live births)	9.3	8.1	
Multiple live birth rate (per 100 live births)	2.7	3.3	2 <sup>nd</sup> lowest
Rate of preterm birth (<37 weeks) (%) <sup>*</sup>	9.0%	8.2%	2 <sup>nd</sup> highest
Preterm birth rate (per 100 live births) <sup>**</sup>	8.5	8.1	
Total pregnancies in Ontario, LHIN of maternal residence	5,203	138,781	
Fertility rate (per 1,000 females of reproductive age)			
Overall rate (15 to 49)	45.5	41.2	
Teen rate (15 to 19)	18.4	6.3	2 <sup>nd</sup> highest
Distribution of maternal age (%)			
<20	5.6%	1.9%	2 <sup>nd</sup> highest
≥ 35	12.0%	23.8%	Lowest
Mean age of mother at birth of first infant	26.6	29.3	2 <sup>nd</sup> lowest
Overall mean age of mother at birth	28.1	30.7	2 <sup>nd</sup> lowest
Rate of Caesarean delivery (%), LHIN of hospital	30.1%	28.4%	
Total Caesarean Section Rate	30.5	28.4	2 <sup>nd</sup> highest
Primary Caesarean Section Rate, LHIN of patient	20.9	19.0	2 <sup>nd</sup> highest
Primary C-Section Rate (< 35 years)	20.2	17.9	Highest
Primary C-Section Rate (≥ 35 years)	26.2	22.9	Highest
Repeat Caesarean Section Rate	86.5	82.7	
Epidural Rate for Vaginal Deliveries	51.0	60.3	2 <sup>nd</sup> lowest
Epidural Rate for All Deliveries	41.8	51.0	2 <sup>nd</sup> lowest
Assisted Delivery Rate Among Vaginal Deliveries			
Overall	9.7	12.3	
Vacuum Extraction	7.3	9.1	
Forceps	1.9	2.8	
Healthcare provider who caught the baby for hospital births (%), LHIN of hospital			
Obstetrician	69.3%	78.8%	
Family doctor	16.1%	7.4%	2 <sup>nd</sup> highest
Midwife	11.1%	7.4%	
Other	3.5%	6.4%	
Low birth weight rate (per 100 live births)	7.1	6.8	
Fullterm low birth weight rate (per 100 live births)	2.4	2.0	2 <sup>nd</sup> highest
Births small for gestational age (%) <sup>*</sup>	9.2%	9.7%	
Small for gestational age (per 100 live births) <sup>**</sup>	9.2	9.6	
Births large for gestational age (%) <sup>*</sup>	11.8%	9.7%	
Large for gestational age (per 100 live births) <sup>**</sup>	12.0	9.8	
Rate of exclusive breastfeeding among term live hospital births (%), LHIN of maternal residence	62.2%	62.8%	

<sup>†</sup>Ranking in the province compared to other LHINs.

<sup>\*</sup> As reported by BORN Ontario

<sup>\*\*</sup> As reported by Public Health Ontario

### Maternal smoking, alcohol and drug use during pregnancy among all women who live in Ontario and who had a live birth or stillbirth (LHIN of maternal residence), 2016/17 (BORN)

- In North East, the rate of women who self-identified as non-smokers at first prenatal visit was 74.3%, the 2<sup>nd</sup> lowest proportion in the province. At the time of labour, 78.1% were non-smokers, the 2<sup>nd</sup> lowest proportion in the province.
  - The prevalence of smoking 1-10 cigarettes and 10+ cigarettes at the first prenatal visit was 15.1% and 9.2%, respectively.
- 3.6% of the women reported drinking alcohol. 6.0% reported using drugs during pregnancy, the 2<sup>nd</sup> highest proportion in the province.

	Ontario	Comments <sup>†</sup>
<b>Maternal smoking at first prenatal visit (%) LHIN of maternal residence‡</b>		
% women who reported smoking (0) cigarettes/day	74. 90.7%	2 <sup>nd</sup> lowest
% women who reported smoking (1 – 10) cigarettes/day	15. 5.5%	2 <sup>nd</sup> highest
% women who reported smoking (10+) cigarettes/day	9.2 3.2%	Highest
<b>Maternal smoking at time of labour (%)</b>		
% women who reported smoking (0) cigarettes/day	78. 92.5%	2 <sup>nd</sup> lowest
% women who reported smoking (1 – 10) cigarettes/day	13. 4.6%	2 <sup>nd</sup> highest
% women who reported smoking (10+) cigarettes/day	7.7 2.6%	Highest
Alcohol consumption during pregnancy (%)	3.6 2.6%	
Drug and substance exposure during pregnancy (%)	6.0 2.3%	2 <sup>nd</sup> highest

†Ranking in the province compared to other LHINs.

### Life Expectancy

- Life expectancy at birth for both males and females in 2012-2014 was 80 years, the second lowest in the province. Life expectancy at birth for males in North East LHIN was 77 years, the second lowest in the province. Life expectancy at birth for females from 2012-2014 was 82 years.
- Life expectancy at age 65 for both sexes from 2012-2014 was 20 years, the **lowest** in the province.
- Life expectancy at age 65 for males was 18 years, the **lowest** amongst all the LHINs. Life expectancy at age 65 for females was 21 years, the second lowest in the province.

	North East LHIN	Ontario	Rank among LHINs <sup>†</sup>
<b>Life Expectancy</b>			
<b>Life expectancy at birth- Both Sexes 2012-14</b>	79.5	82.3	2 <sup>nd</sup> lowest
<b>Life expectancy at birth- Male 2012-14</b>	76.9	80.2	2 <sup>nd</sup> lowest
<b>Life expectancy at birth- Female 2012-14</b>	82.0	84.3	
<b>Life expectancy at age 65- Both Sexes 2012-14</b>	19.5	20.9	Lowest
<b>Life expectancy at age 65- Male 2012-14</b>	17.7	19.3	Lowest
<b>Life expectancy at age 65- Female 2012-14</b>	21.1	22.2	2 <sup>nd</sup> lowest

†Ranking in the province compared to other LHINs (highest and lowest 2).

### Mortality and Potential Years of Life Lost

- In 2012, 5,385 North East LHIN residents died.
- The all-cause mortality rate for LHIN residents was 945 per 100, 000 population in 2012.
  - By sub-region, **Algoma** had the sixth highest rate for mean annual, all-cause mortality per 100,000 population (1,042).
  - **James and Hudson Bay Coasts** sub-region had the **highest** rate for mean annual all-cause premature mortality rate per 100,000 population (69%).
  - By sub-region, **James and Hudson Bay Coasts** had the second highest rate for mean annual all-cause PYLL rate per 100,000 population (12,319). **Algoma** sub-region had the eighth highest in the province (6,937).
- Ischaemic heart disease was the leading cause of death in North East LHIN, followed by cancer of lung and bronchus and Dementia and Alzheimer's disease.
- 34,934 years of potential life were lost by LHIN residents in 2012.
- The LHIN's potential years of life lost (PYLL) rate for 2012 was 6,666 per 100,000 population aged less than 75. Since 2007, the PYLL rate decreased by 2.3%for North East LHIN residents.
- The leading causes of PYLL in 2012 were Ischaemic heart disease, accidental poisoning and intentional self-harm. The PYLL rates per 100,000 for Ischaemic heart disease was the **highest** in the province (722 per 100,000 population).

## Mortality, Potential Years of Life Lost

	North East LHIN	Ontario	Rank among LHINs†	Range across North East Sub- regions (2010- 2012)
<b>Mortality, 2012</b>				
Total deaths, 2012	5,385	90,525		40- 2,157
% change in total deaths (2007-2012)	1.0%	4.1%	2 <sup>nd</sup> highest	NA
All-cause mortality rate per 100,000 population	945.3	674.9		595.8- 1,042.1
% change in all-cause mortality rate (2007-2012)	1.5%	-0.7%		NA
% of deaths that were premature (age < 75)	41.5%	37.3%	2 <sup>nd</sup> highest	39.3%- 68.5%
<b>Top 10 leading causes of death, 2012 (rates per 100,000 population)<sup>3</sup></b>				
Ischaemic heart disease	146.1	98.0	highest	107.4- 157.5
Dementia & Alzheimer's disease	59.2	55.6		0.0- 76.2
Cancer of lung & bronchus	78.5	50.3	2 <sup>nd</sup> highest	84.1- 88.4
Cerebrovascular diseases	52.5	36.6	Highest	47.5- 55.0
Chronic lower respiratory diseases	50.6	28.4	Highest	43.5- 61.2
Cancer of colon, rectum, anus	33.5	23.4	2 <sup>nd</sup> highest	28.9- 40.7
Diabetes	32.7	20.7		32.4- 43.0
Cancer of lymph, blood & related	24.0	20.0		20.8- 27.8
Falls	20.2	17.4		0.0- 26.5
Influenza & pneumonia	21.2	15.2		NA
<b>Potential years of life lost (PYLL), 2012</b>				
Total PYLL, 2012	34,934	551,256		618- 14,772
% change in PYLL (2007-2012)	-3.8%	-0.6%		NA
PYLL rate per 100,000 population (age < 75)	6,666	4,405	2 <sup>nd</sup> highest	6,444.0- 12,319.1
% change in PYLL rate (2007-2012)	-2.3%	-5.0%		NA
<b>Top 10 leading causes of PYLL, 2012 (rates per 100,000 population, age &lt; 75)<sup>4</sup></b>				
Ischaemic heart disease	721.8	406.8	Highest	652.6- 910.0
Cancer of lung & bronchus	432.6	322.6		530.0- 608.7
Intentional self-harm	468.4	284.7	2 <sup>nd</sup> highest	368.3- 2,456.1
Perinatal conditions	214.7	253.3		0.0- 350.8
Accidental poisoning	468.6	190.6	2 <sup>nd</sup> highest	298.5- 1,365.1
Transport accidents	295.7	171.8	2 <sup>nd</sup> highest	150.2- 1,606.4
Cancer of lymph, blood & related	193.3	149.1	highest	NA
Cancer of colon, rectum, anus	196.9	141.3	2 <sup>nd</sup> highest	124.8- 286.0
Cirrhosis & other liver diseases	215.6	133.5	2 <sup>nd</sup> highest	NA
Diabetes	173.4	110.9		NA

†Ranking in the province, compared to other LHINs.

<sup>3</sup> Mean rate from 2010-2012

<sup>4</sup> Mean rate from 2010-2012

## General Health, Risk Factors, and Prevention

### General Health

- In 2015-16, 56% of North East LHIN residents said they had very good or excellent health, **significantly lower** than the Ontario rate of 61%.
  - Very good or excellent health was significantly less prevalent in the **Nipissing-Temiskaming** sub-region.
- The proportion of North East LHIN residents reporting very good or excellent mental health (67%) was also **significantly lower** than the Ontario rate of 72%.
- 20% of North East residents reported that most days were “quite a bit” or “extremely” stressful.

### Prevention

- Only 86% of North East LHIN residents reported having a regular medical doctor—the second lowest rate among LHINs, and a **significantly lower** proportion than in Ontario overall.
  - Compared to Ontario, the proportion of people with a regular medical doctor was **significantly lower** in the **Nipissing-Temiskaming**, **Sudbury-Manitoulin-Parry Sound**, and **Cochrane** sub-regions.
- Also, a **significantly lower** proportion of people in the North East LHIN (67%) had consulted a family doctor or general practitioner in the past year, compared to Ontario (74%).
- 35% of residents of North East LHIN indicated that they received a flu shot in the year preceding the survey.

### Risk Factors

- The proportion of North East LHIN residents who reported daily or occasional smoking (24%) in 2015-16 was the highest among LHINs and **significantly higher** than the Ontario rate of 17%. Smoking rates have been declining over time in Ontario, but have not improved in the North East LHIN.
  - Compared to Ontario, smoking rates are **significantly higher** in the sub-regions of **Nipissing-Temiskaming**, **Sudbury-Manitoulin-Parry Sound**, and **Cochrane**<sup>5</sup>.
- The proportion of people (11%) exposed to second hand smoke in the home was also **significantly higher** than the Ontario rate of 7%.
- The proportion of residents reporting heavy drinking was **significantly higher** in the North East LHIN (22%) than in Ontario overall. Heavy drinking is defined as having consumed 5 or more drinks for males and 4 or more drinks for women on at least one occasion at least once a month during the past year.
- The proportion of North East LHIN residents (69%) who were either overweight or obese was **significantly higher** than in Ontario overall (61%). The rates are rising over time in the North East LHIN and in Ontario overall. The obesity rate (34%) is also **significantly higher** than Ontario (26%).
  - Overweight or obesity rates are **significantly higher** than Ontario in the **Sudbury-Manitoulin-Parry Sound**, and **Cochrane** sub-regions.
- 44% of North East residents were physically inactive—now defined as less than 150 minutes of moderate to vigorous activity per week.
- 74% of North East residents did not consume enough fruits and vegetables (i.e., had fewer than 5 servings of fruits or vegetables daily).
  - Compared to Ontario, the proportion of residents consuming less than 5 servings per day is **significantly higher** in the **Algoma** sub-region.

---

<sup>5</sup> The smoking rate is also as high in the **Algoma** sub-region as the other sub-regions in North East LHIN, but there is higher sampling variation resulting in a statistically insignificant result relative to the Ontario rate.

## General Health, Risk Factors, and Prevention; North East LHIN

	North East LHIN 2015-16	Ontario (2015-16)	Rank among LHINs <sup>†</sup> (2015-16)	Range across North East sub-regions (2011-14)* <sup>a</sup>
<b>General Health</b>				
General health, % of the population age 12+ with...				
Very good or excellent self-perceived health	56% <sup>-1</sup>	61%	3 <sup>rd</sup> lowest	54-58%
Very good or excellent self-perceived mental health	66% <sup>-1</sup>	71%	2 <sup>nd</sup> lowest	71-75%
Days that are 'quite a bit' or 'extremely' stressful (age 15+)	20%	22%		
<b>Prevention</b>				
Use of Health Services and Preventive Care, % of the population age 12+ who...				
Have a regular medical doctor	86% <sup>-1</sup>	90%	3 <sup>rd</sup> lowest	83-88%
Have consulted with family doctor/general practitioner (past yr)	67% <sup>-1</sup>	74%	Lowest	
Received flu shot in the past year	35%	33%		
<b>Risk Factors</b>				
Risk factors, % of the population age 12+ who...				
Are daily or occasional smokers	24% <sup>1</sup>	17%	Highest	25-26%
Are exposed to second-hand smoke in the home	11.4% <sup>1</sup>	6.9%	2 <sup>nd</sup> highest	
Are heavy drinkers	22% <sup>1</sup>	18%	3 <sup>rd</sup> highest	
Are overweight or obese (age 18+)	69% <sup>1</sup>	61%	Highest	57-65%
Are overweight (age 18+)	35%	35%		31-38%
Are obese (age 18+)	34% <sup>1</sup>	26%	3 <sup>rd</sup> highest	24-27%
Are physically inactive	44%	42%		41-45%
Consume < 5 servings of fruits/vegetables daily	74%	72%	3 <sup>rd</sup> highest	60-67%

\*2011-2014 sub-region rates are not directly comparable with LHIN and Ontario rates from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

<sup>†</sup>Top or bottom 3 ranking in the province, compared to other LHINs. Interpret with caution, rank based on point estimate, which may or may not be significantly different from Ontario. See significance flags for each measure below.

<sup>1</sup> LHIN is **significantly higher** than Ontario

<sup>-1</sup> LHIN is **significantly lower** than Ontario

<sup>c</sup> Estimates with high sampling variability (CV between 16.6 -33.3) must be used with caution.

<sup>a</sup> Data for the *James and Hudson Bay Coasts* sub-region are suppressed due to small sample size or data quality issues.

## Chronic Conditions

### Prevalence, mortality, hospital separations and hospital days of stay for selected chronic conditions

- 49.3% of North East residents (aged 12+) reported having a one or more chronic conditions with 22.2% having two or more chronic conditions.
- Of note, the prevalence rate for residents with one or more chronic conditions was **significantly higher** than Ontario (39.6%) and was the **highest** among the LHINs.
- Additionally, the prevalence rate for residents with two or more chronic conditions was **significantly higher** than Ontario and was the **highest** among the LHINs.
- Chronic conditions with the highest or lowest prevalence rates compared to other LHINs were as follows: Arthritis - **Highest**; High blood pressure - **Highest**; Heart disease - **Highest**; Suffer from effects of a stroke - 2<sup>nd</sup> highest
- The mean health care cost per user for North East residents in 2015/16 was \$3,700 (\$2,750 for Ontario). North East LHIN was among the 3 LHINs with the highest mean health care cost per user.
- 7.2% of the patients were complex (4+ conditions), 5.8% for Ontario. North East LHIN was among the 3 LHINs with the largest proportion of complex patients.
- The mean healthcare cost of a complex patient was \$24,250 compared to \$22,050 for Ontario.
- 7.1% of the patients were high cost user patients, 5.0% for Ontario. North East LHIN was among the 3 LHINs with the largest proportion of high cost user patients.
- The mean healthcare cost per high cost user was \$38,400 compared to \$37,700 for Ontario. North East LHIN was among the 3 LHINs with the highest cost per high cost user.
- The hospitalization rate (per 100,000 population) for asthma in North East LHIN was 44.7 compared to 34.3 for Ontario. North East LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for cardiovascular disease in North East LHIN was 1340.6 compared to 916.9 for Ontario. North East LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for chronic obstructive pulmonary disease in North East LHIN was 292 compared to 171.8 for Ontario. North East LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for diabetes in North East LHIN was 159.3 compared to 100.2 for Ontario. North East LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for hypertension in North East LHIN was 29.9 compared to 18 for Ontario. North East LHIN among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for ischemic heart disease in North East LHIN was 568.1 compared to 314.8 for Ontario. North East LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for lower respiratory disease in North East LHIN was 338.4 compared to 208.9 for Ontario. North East LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for respiratory disease in North East LHIN was 788.4 compared to 599.7 for Ontario. North East LHIN was among the 3 LHINs with the highest rates.

### Chronic Conditions, Complex Patients

Conditional	North East	Ontario	Comment
<b>Self-reported prevalence (2015-16), rate per 100, age 12+</b>			
Arthritis	28.3	20.6	Highest
Asthma	9.5	8.7	
Cancer	1.7 <sup>C</sup>	1.3	
Chronic Obstructive Pulmonary Disease (COPD) (age 35+)	6.1	4.0	
Diabetes	8.8	7.4	
High blood pressure	24.6	18.2	Highest
Heart disease	6.8	4.6	Highest
Suffer from effects of stroke	2.0	1.3	2 <sup>nd</sup> highest
Have a chronic condition	49.3	39.6	Highest
Have multiple chronic conditions <sup>1</sup>	22.2	16.2	Highest

C: 0.15<CV<=0.25 Marginal (Use with caution-high sampling variability)

D: 0.25<CV<=0.35 Marginal (Use with caution-high sampling variability)

1 - Of the selected conditions on this list

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>			
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	44.7	34.3	
Cardiovascular disease	1,340.6	916.9	
Cerebrovascular disease	149.0	133.2	
COPD	292.0	171.8	
Diabetes	159.3	100.2	
Hypertension	29.9	18.0	
Ischemic heart disease	568.1	314.8	
Lower respiratory disease	338.4	208.9	
Respiratory disease	788.4	599.7	
Stroke	117.4	112.5	
<b>Complex Patients and high cost users, 2015/16</b>			
Mean health care cost per user \$	\$ 3,700	\$ 2,750	
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$ 24,250	\$ 22,050	
# of patients that are complex	34,320	680,115	
% of all patients (health care users) that are complex	7.2%	5.8%	
<b>High cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$ 38,400	\$ 37,700	
# of patients that are high cost users	33,995	581,670	
% of patients that are high cost users	7.1%	5.0%	



### NIPISSING-TEMISKAMING SUB-REGION (1301)

- The prevalence rate (per 100) for the population with arthritis (14+) was 23.7 (Ontario - 17.3). **Nipissing-Temiskaming** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with diabetes was 11.4 (Ontario - 6.8). **Nipissing-Temiskaming** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with high blood pressure was 21.8 (Ontario - 18.1). **Nipissing-Temiskaming** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with heart disease was 8.1 (Ontario - 5). **Nipissing-Temiskaming** sub-region's rate was **significantly higher** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 1342.2 (Ontario - 916.9). **Nipissing-Temiskaming** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for diabetes was 163.7 (Ontario - 100.2). **Nipissing-Temiskaming** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for hypertension was 40.7 (Ontario - 18). **Nipissing-Temiskaming** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 571.3 (Ontario - 314.8). **Nipissing-Temiskaming** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **Nipissing-Temiskaming** sub-region was \$4,000 (Ontario - \$2,750). It was among the 8 sub-regions with the highest mean cost per user.
- 7.2% of patients from **Nipissing-Temiskaming** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Nipissing-Temiskaming** sub-region was \$26,500 (Ontario - \$22,050). It was among the 8 sub-regions with the highest mean cost per complex patient.
- 7.7% of patients from **Nipissing-Temiskaming** sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the highest percentage of high cost users.
- The mean health care cost per high cost user in **Nipissing-Temiskaming** sub-region was \$39,350 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Nipissing-Temiskaming	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	23.7	17.3	17
Asthma	7.4	7.8	45
Diabetes	11.4	6.8	2
High blood pressure	21.8	18.1	20
Heart disease	8.1	5.0	3

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
AGE STANDARDIZED rate per 100,000			
Asthma	48.1	34.3	16
Cardiovascular disease	1,342.2	916.9	7
Cerebrovascular disease	132.5	133.2	48
COPD	304.4	171.8	12
Diabetes	163.7	100.2	7
Hypertension	40.7	18.0	2
Ischemic heart disease	571.3	314.8	6
Lower respiratory disease	352.9	208.9	12
Respiratory disease	858.0	599.7	13
Stroke	98.9	112.5	63

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$4,000	\$ 2,750	3
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$26,500	\$ 22,050	8
# of patients that are complex	8,515	680,115	
% of all patients (health care users) that are complex	7.2%	5.8%	14
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$39,350	\$ 37,700	18
# of patients that are high cost users	9,075	581,670	
% of patients that are high cost users	7.7%	5.0%	2

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

#### SUDBURY-MANITOULIN-PARRY SOUND SUB-REGION (1302)

- The prevalence rate (per 100) for the population with arthritis (14+) was 26 (Ontario - 17.3). **Sudbury-Manitoulin-Parry Sound** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with diabetes was 9.2 (Ontario - 6.8). **Sudbury-Manitoulin-Parry Sound** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with high blood pressure was 23.3 (Ontario - 18.1). **Sudbury-Manitoulin-Parry Sound** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with heart disease was 7.8 (Ontario - 5). **Sudbury-Manitoulin-Parry Sound** sub-region's rate was **significantly higher** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for hypertension was 32.1 (Ontario - 18). **Sudbury-Manitoulin-Parry Sound** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 508.1 (Ontario - 314.8). **Sudbury-Manitoulin-Parry Sound** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **Sudbury-Manitoulin-Parry Sound** sub-region was \$3,500 (Ontario - \$2,750).
- 7.3% of patients from **Sudbury-Manitoulin-Parry Sound** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Sudbury-Manitoulin-Parry Sound** sub-region was \$22,700 (Ontario - \$22,050).
- 7.0% of patients from **Sudbury-Manitoulin-Parry Sound** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Sudbury-Manitoulin-Parry Sound** sub-region was \$37,100 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Sudbury-Manitoulin- Parry Sound	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	26.0	17.3	7
Asthma	9.4	7.8	20
Diabetes	9.2	6.8	12
High blood pressure	23.3	18.1	8
Heart disease	7.8	5.0	7

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	41.5	22
Cardiovascular disease	1,242.0	11
Cerebrovascular disease	150.7	32
COPD	276.1	13
Diabetes	154.0	10
Hypertension	32.1	5
Ischemic heart disease	508.1	8
Lower respiratory disease	318.8	14
Respiratory disease	747.6	22
Stroke	121.8	38

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,500	14
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$22,700	30.5
# of patients that are complex	14,310	
% of all patients (health care users) that are complex	7.3%	10
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$37,100	33
# of patients that are high cost users	13,755	
% of patients that are high cost users	7.0%	10

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## ALGOMA SUB-REGION (1303)

- The prevalence rate (per 100) for the population with arthritis (14+) was 24.5 (Ontario - 17.3). **Algoma** sub-region's rate was **significantly higher** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 1359.6 (Ontario - 916.9). **Algoma** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 597.6 (Ontario - 314.8). **Algoma** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **Algoma** sub-region was \$3,750 (Ontario - \$2,750). It was among the 8 sub-regions with the highest mean cost per user.
- 8.0% of patients from **Algoma** sub-region were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the highest percentage of complex patients.
- The mean health care cost per complex patient in **Algoma** sub-region was \$24,300 (Ontario - \$22,050).
- 7.2% of patients from **Algoma** sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the highest percentage of high cost users.
- The mean health care cost per high cost user in **Algoma** sub-region was \$39,300 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Algoma	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	24.5	17.3	13
Asthma	8.6	7.8	31
Diabetes	8.6	6.8	16
High blood pressure	20.5	18.1	30
Heart disease	6.3	5.0	20

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>		
Asthma	37.5	31
Cardiovascular disease	1,359.6	6
Cerebrovascular disease	162.5	17
COPD	254.6	19
Diabetes	152.2	14
Hypertension	11.3	62.5
Ischemic heart disease	597.6	4
Lower respiratory disease	297.2	18
Respiratory disease	619.6	41
Stroke	125.3	31

Complex Patients and high cost users, 2015/16	Ontario	Ranking*
Mean health care cost per user \$	\$3,750	7
<b>Complex Patients (4+ conditions)</b>		
Mean health care cost per complex patient \$	\$24,300	19.5
# of patients that are complex	6,845	
% of all patients (health care users) that are complex	8.0%	6
<b>High cost users (Top 5%) #</b>		
Mean health care cost per high cost user \$	\$39,300	20
# of patients that are high cost users	6,150	
% of patients that are high cost users	7.2%	8

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

### COCHRANE SUB-REGION (1304)

- The age standardized rate (per 100,000) for hospitalization for asthma was 58.5 (Ontario - 34.3). **Cochrane** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 1684.1 (Ontario - 916.9). **Cochrane** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 386.7 (Ontario - 171.8). **Cochrane** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 719.7 (Ontario - 314.8). **Cochrane** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 446.4 (Ontario - 208.9). **Cochrane** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 970.5 (Ontario - 599.7). **Cochrane** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **Cochrane** sub-region was \$3,600 (Ontario - \$2,750).
- 6.5% of patients from **Cochrane** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Cochrane** sub-region was \$22,950 (Ontario - \$22,050).
- 6.6% of patients from **Cochrane** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Cochrane** sub-region was \$38,150 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	Cochrane	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	19.1	17.3	36
Asthma	7.9	7.8	37
Diabetes	9.2	6.8	13
High blood pressure	22.8	18.1	12
Heart disease	5.8	5.0	30

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
AGE STANDARDIZED rate per 100,000			
Asthma	58.5	34.3	5
Cardiovascular disease	1,684.1	916.9	3
Cerebrovascular disease	162.4	133.2	18
COPD	386.7	171.8	6
Diabetes	132.4	100.2	25
Hypertension	26.9	18.0	9.5
Ischemic heart disease	719.7	314.8	3
Lower respiratory disease	446.4	208.9	6
Respiratory disease	970.5	599.7	6
Stroke	135.7	112.5	18

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$3,600	\$ 2,750	10
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$22,950	\$ 22,050	28
# of patients that are complex	4,400	680,115	
% of all patients (health care users) that are complex	6.5%	5.8%	29
High cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$38,150	\$ 37,700	26
# of patients that are high cost users	4,500	581,670	
% of patients that are high cost users	6.6%	5.0%	16

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.



### JAMES AND HUDSON BAY COASTS SUB-REGION (1305)

- The age standardized rate (per 100,000) for hospitalization for asthma was 54.3 (Ontario - 34.3). **James and Hudson Bay Coasts** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 2374.3 (Ontario - 916.9). **James and Hudson Bay Coasts** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 406.6 (Ontario - 133.2). **James and Hudson Bay Coasts** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 529.9 (Ontario - 171.8). **James and Hudson Bay Coasts** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for diabetes was 716.5 (Ontario - 100.2). **James and Hudson Bay Coasts** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 972.5 (Ontario - 314.8). **James and Hudson Bay Coasts** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 608.3 (Ontario - 208.9). **James and Hudson Bay Coasts** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 1938.8 (Ontario - 599.7). **James and Hudson Bay Coasts** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for stroke was 366.3 (Ontario - 112.5). **James and Hudson Bay Coasts** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **James and Hudson Bay Coasts** sub-region was \$5,150 (Ontario - \$2,750). It was among the 8 sub-regions with the highest mean cost per user.
- 4.0% of patients from **James and Hudson Bay Coasts** sub-region were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the lowest percentage of complex patients.
- The mean health care cost per complex patient in **James and Hudson Bay Coasts** sub-region was \$55,000 (Ontario - \$22,050). It was among the 8 sub-regions with the highest mean cost per complex patient.
- 8.2% of patients from **James and Hudson Bay Coasts** sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the highest percentage of high cost users.
- The mean health care cost per high cost user in **James and Hudson Bay Coasts** sub-region was \$45,700 (Ontario - \$37,700). It was among the 8 sub-regions with the highest mean cost per high cost user.

## Chronic Conditions, Complex Patients

Condition	James and Hudson Bay Coasts	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)		17.3	
Asthma		7.8	
Diabetes		6.8	
High blood pressure		18.1	
Heart disease		5.0	

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>		Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	54.3	34.3	8
Cardiovascular disease	2,374.3	916.9	1
Cerebrovascular disease	406.6	133.2	1
COPD	529.9	171.8	1
Diabetes	716.5	100.2	1
Hypertension	-	18.0	0
Ischemic heart disease	972.5	314.8	1
Lower respiratory disease	608.3	208.9	1
Respiratory disease	1,938.8	599.7	1
Stroke	366.3	112.5	1

<b>Complex Patients and high cost users, 2015/16</b>		Ontario	Ranking*
Mean health care cost per user \$	\$5,150	\$ 2,750	1
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$55,000	\$ 22,050	1
# of patients that are complex	250	680,115	
% of all patients (health care users) that are complex	4.0%	5.8%	74
<b>High cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$45,700	\$ 37,700	2
# of patients that are high cost users	510	581,670	
% of patients that are high cost users	8.2%	5.0%	1

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## Human Resources

### Physicians

- In 2016, there were approximately 1,077 physicians in North East LHIN.
  - This represents the equivalent of approximately 192 physicians for every 100,000 persons in North East LHIN.
  - The number of physicians in North East LHIN increased by close to 9% between 2013 and 2016 with higher growth occurring among family physicians than specialists.
- Between 2013 and 2016, there was an increase of approximately 65 family physicians in North East LHIN
  - The majority of the increase in North East LHIN occurred with 62 additional family physicians between 30-64 years of age.
- In 2016, approximately 10% of family physicians in North East LHIN were at or beyond the age of retirement (65 years of age or older).

### Nurses

- In 2016, there were 8,335 total nurses in North East LHIN.
- The total number of nurses increased slightly by 0.6% in North East LHIN between 2013 and 2016.
  - While the number of Registered Nurses in North East LHIN between 2013 and 2016 decreased, there were substantial increases in the number of Nurse Practitioners (8% increase) and Registered Practical Nurses (5% increase) during the same time period.
- In 2016, there were approximately 1482 nurses for every 100,000 residents of North East LHIN.

### Other Allied Health Professionals

- Between 2013 and 2016, the greatest growth in the number of allied health professionals in North East LHIN was among midwives (an increase of 6 or approximately 21%), occupational therapists (25 additional or 13%) and pharmacists (an increase of 56 or about 12%).
- There was also notable growth in the number of psychologists (5 additional or 6%) in North East LHIN between 2013 and 2016.
- Opticians and audiologists in North East LHIN experienced 6% and 3% reductions respectively in their raw numbers and slightly smaller reductions in their numbers per capita.

North East LHIN					
Physicians	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Total Family Medicine Physicians</b>					
Number of family medicine physicians	576	597	624	641	11.3%
Rate per 100,000 population	101.6	105.4	110.7	114.0	12.2%
<b>Total Specialists</b>					
Number of specialists	416	419	422	436	4.8%
Rate per 100,000 population	73.4	74.0	74.8	77.5	5.7%
<b>Total Physicians</b>					
Number of total physicians	992	1,016	1,046	1,077	8.6%
Rate per 100,000 population	175.0	179.4	185.5	191.5	9.5%

Family Physicians, by age group - count					
Age <30	7			18	157.1%
Age 30-64	495			557	12.5%
Age 65-74	67			55	-17.9%
Age 75+	7			11	57.1%
Grand Total	576			641	11.3%
Age 65+	74			66	-10.8%

Family Physicians, by age group – percent					
Age <30	1.2%			2.8%	131.1%
Age 30-64	85.9%			86.9%	1.1%
Age 65-74	11.6%			8.6%	-26.2%
Age 75+	1.2%			1.7%	41.2%
Age 65+	12.8%			10.3%	-19.9%

North East LHIN					
Nurses	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Registered Nurses</b>					
Number of RNs	5,372	5,352	5,266	5,258	-2.1%
Rate per 100,000 population	944.6	944.9	933.8	935.0	-1.0%
<b>Registered Practical Nurses</b>					
Number of RPN nurses	2,706	2,761	2,845	2,852	5.4%
Rate per 100,000 population	475.8	487.4	504.5	507.2	6.6%
<b>Nurse Practitioners</b>					
Number of NP nurses	209	219	221	225	7.7%
Rate per 100,000 population	36.7	38.7	39.2	40.0	8.9%
<b>Total Nurses</b>					
Total Nurse - Number of nurses	8,287	8,332	8,332	8,335	0.6%
Total Nurse - Rate per 100,000 population	1,457.1	1,471.0	1,477.5	1,482.2	1.7%

North East LHIN					
Other Regulated Health Professionals	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Audiologists</b>					
Audiologist - Number	31	30	29	30	-3.2%
Audiologist - Rate per 100,000 population	5.5	5.3	5.1	5.3	-2.1%
<b>Midwives</b>					
Midwife - Number	29	30	33	35	20.7%
Midwife - Rate per 100,000 population	5.1	5.3	5.9	6.2	22.1%
<b>Occupational Therapists</b>					
Occupational Therapist - Number	186	188	194	211	13.4%
Occupational Therapist - Rate per 100,000 population	32.7	33.2	34.4	37.5	14.7%
<b>Opticians</b>					
Optician - Number	85	81	81	80	-5.9%
Optician - Rate per 100,000 population	14.9	14.3	14.4	14.2	-4.8%
<b>Optometrists</b>					
Optometrist - Number	94	96	94	95	1.1%
Optometrist - Rate per 100,000 population	16.5	16.9	16.7	16.9	2.2%
<b>Pharmacists</b>					
Pharmacist - Number	481	518	512	537	11.6%
Pharmacist - Rate per 100,000 population	84.6	91.5	90.8	95.5	12.9%
<b>Psychologists</b>					
Psychologist - Number	80	81	80	85	6.3%
Psychologist - Rate per 100,000 population	14.1	14.3	14.2	15.1	7.5%
<b>Speech-Language Pathologists</b>					
Speech-Language Pathologist - Number	118	120	114	119	0.8%
Speech-Language Pathologist - Rate per 100,000 population	20.7	21.2	20.2	21.2	2.0%

## Primary Care

### Primary Care Enrolment

- More than 430,000 (n=432,868) North East LHIN residents were enrolled with a PEM and 145,262 residents were affiliated with FFS physicians (i.e. not enrolled).
- Among residents enrolled with a PEM, almost two-fifths (39%) were affiliated with FHO physicians in 2016/2017, and one-quarter (25%) access FFS physicians.
- There are 52 practices with 480 physicians in the North East LHIN. There are 22 RNPGA practices with 56 physicians, and 2 separate, non-FHT practice types with 45 physicians distributed.

### Selected Measures from the Health Care Experience Survey

#### Self-reported access to, and satisfaction with, primary care

	Ontario (2017)	LHIN (2017)	Range Across NE sub-regions (2014-2017)
Percentage who are satisfied with health care in their community	87%	83% <sup>L</sup>	78% to 83%*
Percentage with primary care providers (attached patients)	94%	92%	90% to 94%*
Percentage who saw their primary care provider within the same day/next day when sick	40%	29% <sup>L</sup>	21% to 31%*
Percentage who went to ED for something that could have been treated by primary care provider	42%	51%	45% to 64%*
Percentage who found it difficult to access care after-hours without going to an emergency department	53%	61% <sup>H</sup>	49% to 78%*
Percentage who went to walk-in clinic in past 12 months	30%	21% <sup>L</sup>	11% to 32%*
Percentage who went to a walk in clinic for something that could have been treated by provider if they were available	92%	95%	87% to 92%

*H=significantly higher than the province*

*L=significantly lower than the province*

*\*Some sub-regions not reported (James and Hudson Bay Coasts does not report any reliable estimate)*

- Eighty-three percent (83%) of North East residents were satisfied with health care in their community. This is **significantly lower** than the provincial value (87%).
  - All sub-regions are **significantly lower** than the provincial proportion, with **Sudbury-Manitoulin-Parry Sound** as the highest (83%) and **Nipissing-Temiskaming** (78%) as the highest.
- In 2017, 92% of North East LHIN adults (aged 16 years and older) had a primary care provider.
  - Two sub-regions (**Nipissing-Temiskaming** at 90% and **Sudbury-Manitoulin-Parry Sound** at 92%) were **significantly lower** than the province.
- In 2017, 29% of North East LHIN residents were able to see their primary care provider within the same day/next day when they were sick. This is **significantly lower** than the provincial value (40%).
  - All sub-region reported **significantly lower** proportions than the rest of the province, with **Sudbury-Manitoulin-Parry Sound** as the lowest (21%) and **Nipissing-Temiskaming** (31%) as the highest.
- Fifty-one (51%) percent of North East LHIN went to the ED for something that they felt could have been treated by their primary care provider.
  - All percentages but **Sudbury-Manitoulin-Parry Sound** (45%) sub-region were **significantly higher** than the provincial proportion.

- Three in five (61%) North East LHIN residents found it difficult to access after-hours care without going to the ED. This was **significantly higher** than the provincial value (53%).
  - All percentages but **Sudbury-Manitoulin-Parry Sound** (49%) sub-region were **significantly higher** than the provincial proportion, with **Algoma** reporting the highest at 78%.
- In the North East LHIN, 21% of adults reported attending walk-in clinics in the previous 12 months, **significantly lower** than the provincial rate of 30%.
  - There was substantial variation across the sub-regions, where **Sudbury-Manitoulin-Parry Sound** was higher in walk-in visitors compared to other sub-region (32%), but the rest of the sub-regions were **significantly lower** than the provincial proportion.
  - 95% felt that their walk-in visit could have been addressed by a primary care provider if one had been available.

## Community Care

- North East LHIN ranks second highest in CMH&A\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population with 156 (province is 55).
- North East LHIN ranks second highest in CMH&A\_Community Group Participants Patient Attendances per 1,000 population with 137 (province is 65).
- North East LHIN ranks second highest in CSS\_Community Visits-Face to Face Visits per 1,000 population with 657 (province is 385).
- North East LHIN ranks highest in CTC\_Community Visits-Face to Face Visits per 1,000 population 0-18 with 551 (province is 173).
- North East LHIN ranks highest in CTC\_Community Visits- Non Face to Face Visits per 1,000 population 0-18 with 119 (province is 31).
- North East LHIN ranks second highest in CTC\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population 0-18 with 4 (province is 3).



## Mental Health Services

### Wait Time for Community Services

- Counselling and treatment services had the longest median wait times (14 days) among the community mental health (MH) services in North East LHIN in 2017/18, 7 days shorter than the province's median wait for that service.
- Among the substance abuse (SA) services provided in North East LHIN, case management/supportive counselling and services and residential treatment services had the longest median wait times (21 days). Both were shorter than the province's median wait times in 2017/18 (34 and 42 days, respectively).
- For problem gambling, only community treatment is provided in this LHIN. The median wait time for this treatment was 2 days shorter than the provincial median wait of 10 days.

### Mental Health and Substance Abuse Emergency Department Visits

- In 2016/17, there were 17,430 unscheduled ED visits for North East residents where the main problem was a MH/SA condition. In total, there were 22,664 visits with a MH/SA condition in any of the diagnostic fields.
- Between 2013/14 and 2016/17, there was 17.2% growth in visits with a MH/SA main problem diagnosis (lower than the province's value of 20.9%) and 13.4% growth in visits with a MH/SA condition in any diagnostic field (lower than the province's value of 21.1%).
- The MH/SA ED visit rate (main diagnosis) for North East LHIN residents was the second highest in the province at 31.0 per 1,000 population. The main problem visit rate increased by 18.1% between 2013/14 and 2016/17.
  - By sub-region, **James and Hudson Bay Coasts** and **Cochrane** had the 2<sup>nd</sup> and 6<sup>th</sup> highest ED visit rate per 1,000 population, at 88.1 and 44.6, respectively, where the main problem was a MH/SA condition.
  - Where a MH/SA condition was in any of the diagnostic fields, **James and Hudson Bay Coasts**, **Cochrane** and **Nipissing-Temiskaming** had the 2<sup>nd</sup>, 5<sup>th</sup> and 8<sup>th</sup> highest rates (99.6, 58.8 and 40.4 per 1,000 population).
- Visits with a MH/SA main problem diagnosis accounted for 3.8% of all ED visits for North East LHIN residents.
- In 2016/17, there were 239 ED visits of North East residents for opioid overdose. Of those, 45.6% were accidental.
- The crude rate of ED visits for opioid overdose in FY2016/17 for North East residents was 4.3, higher than the provincial value (3.5). Between 2013/14 and 2016/17, there was a 2.9% growth in the visit rate for opioid overdose for all North East residents, the second lowest growth in the province.

## Unscheduled emergency department utilization for mental health and substance abuse conditions, North East LHIN and Ontario residents, 2016/17

Measure	North East LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient<sup>†</sup></b>				
Main problem visits	17,430	268,514	17.2%	
% of total ED visits	3.8%	4.3%	-	
Any problem visits	22,664	338,260	13.4%	
% of total ED visits	5.0%	5.5%	-	
Main problem, visits per 1,000	31.0	19.2	18.1%	2 <sup>nd</sup> highest
Any problem, visits per 1,000	40.3	17.1%	14.4%	2 <sup>nd</sup> highest
ED visits for opioid overdose	239	4,831	1.7%	
% of visits that were accidental	45.6%	50.1%	-	
Crude rate per 10,000 population	4.3	3.5	2.9%	

<sup>†</sup>LHIN of patient results for Ontario exclude out-of-province residents

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

### Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility

- In 2016/17, there were 17,321 unscheduled ED visits in North East LHIN hospitals, where the main problem was a MH/SA condition. 1.2% of these visits were made by homeless individuals, the third lowest proportion in the province.
- There were 4,118 admissions and 4,379 active cases who received treatment in adult designated MH units in North East LHIN hospitals. There were 4,166 discharges from these units with the total days of discharge patients equal to 103,331 days. The mean length of stay in North East LHIN MH units was 24.8 days, shorter than all Ontarians (24.9 days). Residents from outside the LHIN accounted for 4.8% of the active cases treated in North East LHIN.
- Between 2013/14 and 2016/17, active cases, admissions and discharges increased in North East LHIN hospitals by 14.4%, 17.5% and 18.4%, respectively. The total days of discharged patients decreased by 1.1%.
- Short stay (33.3%) and bipolar and depressive disorders (30.7%) accounted for the largest proportions of active cases in North East LHIN hospitals in 2016/17. Compared with the provincial values, North East had larger proportions of active cases for short stay, bipolar and depressive disorders and other disorders.
- There were 4,528 active cases, 4,252 admissions and 4,292 discharges for North East LHIN residents from Ontario adult designated MH units. Mean length of stay for North East LHIN residents was higher than the province (24.9 days compared to 24.8 days). 7.9% of North East LHIN resident active cases received treatment in hospitals outside the LHIN. Compared with the provincial rates, North East LHIN residents had the **highest** rates of active cases, admissions, and discharges per 100,000 population age 15+.
  - By sub-region, **Nipissing-Temiskaming** had the 3<sup>rd</sup> longest mean length of stay among the 76 sub-regions at 52.8 days.
  - **James and Hudson Bay Coasts, Algoma, Sudbury-Manitoulin-Parry Sound** and **Cochrane** had the highest, 2<sup>nd</sup> highest, 3<sup>rd</sup> highest and 4<sup>th</sup> highest crude rates for active cases, admissions and discharges per 100,000 population.
- Active cases, admissions, discharges, total days and the associated rates increased for North East LHIN residents between 2013/14 and 2016/17.

### Adult designated mental health unit utilization, North East LHIN hospitals and residents, 2016/17

Measure	North East LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient</b>				
Active cases	4,528	64,523	14.0%	
Admissions	4,252	60,197	16.5%	
Discharges	4,292	60,607	17.4%	
Total Days	106,739	1,504,690	8.3%	
Mean Length of Stay	24.9	24.8	-	
% Outflow Active Cases	7.9%	-	-	
Active Cases per 100,000 (age 15+)	943.8	548.5	14.9%	<i>Highest</i>
Admission per 100,000 (age 15+)	886.3	511.7	17.4%	<i>Highest</i>
Discharges per 100,000 (age 15+)	894.6	515.2	18.4%	<i>Highest</i>
<b>SCIPP Categories - % of total active cases</b>				
Short Stay	31.7%	27.4%	-	
Schizophrenia and other psychotic disorders	21.1%	27.0%	-	
Neurocognitive disorders	2.2%	3.1%	-	
Bipolar and depressive disorders	32.3%	29.6%	-	
Personality disorders	2.9%	3.0%	-	
Feeding and eating disorders	0.2%	0.4%	-	
Substance Use disorders	5.1%	5.5%	-	
Other disorders	4.5%	4.0%	-	
<b>LHIN of hospital</b>				
Active cases	4,379	64,738	14.4%	
Admissions	4,118	60,383	17.5%	
Discharges	4,166	60,795	18.4%	
Total Days (discharged patients only)	103,331	1,512,754	-1.1%	
Mean Length of Stay	24.8	24.9	-	
% Inflow Active Cases	4.8%	-	-	<i>2<sup>nd</sup> highest</i>

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

## Surgery & Diagnostic Imaging

### Day Surgery and Cardiac Catheterization Utilization

#### Day Surgery and Cardiac Catheterization Visits

- In 2016/17, there were 79,273 day surgery and ambulatory cardiac catheterization visits to North East LHIN hospitals. Residents from outside the LHIN accounted for 1.9% of the visits.
- Between 2013/14 and 2016/17, there was an increase of 5.8% in North East LHIN hospital's day surgery and cardiac catheterization visits.
- There were 84,918 day surgery and ambulatory cardiac catheterization visits for North East LHIN residents. There was an increase in both the number and rate of visits between 2013/14 and 2016/17.
- In 2016/17, 8.4% of these visits occurred in hospitals outside the LHIN.
- North East LHIN residents had 151.0 day surgery and cardiac catheterization visits per 1,000 population. This rate was higher than the provincial rate of 93.9 and the highest rate among all LHINs.
- The following sub-regions had among the eight highest rates of visits per 1,000 population for all Ontario sub-regions:
  - **Nipissing-Temiskaming** had the 4<sup>th</sup> highest rate of visits per 1,000 population.
  - **Algoma** had the 8<sup>th</sup> highest rate of visits per 1,000 population.
  - **Cochrane** had the 2<sup>nd</sup> highest rate of visits per 1,000 population.
- The following sub-regions had among the eight lowest rates of visits per 1,000 population for all Ontario sub-regions:
  - **James and Hudson Bay Coasts** had the 2<sup>nd</sup> lowest rate of visits per 1,000 population.

#### Day surgery and ambulatory cardiac catheterization visits, North East LHIN and Ontario, 2016/17

Measure	LHIN	Comments	Ontario†	LHIN % change 2013-14 - 2016/17	Range within LHINs	Range within North East sub- regions
<b>LHIN of hospital</b>						
Visits	79,273		1,322,943	5.8%	27,727 - 158,077	
% Inflow visits	1.9%				0.7% - 58.4%	
<b>LHIN of patient</b>						
Total population	562,346		13,982,984	-1.1%	235,148 - 1,893,948	
Visits	84,918		1,313,103	5.4%	28,401 - 157,644	448 - 32,031
% Outflow visits	8.4%				3.0% - 39.0%	5.7% - 13.3%
Visits per 1,000 population	151.0	Highest	93.9	6.3%	66.8 - 151.0	58.9 - 165.2
- age 0-17 years	38.4	Highest	22.2		13.9 - 38.4	
- age 18-44 years	85.5	Highest	46.5		34.8 - 85.5	
- age 45-64 years	183.0	Highest	125.3		93.9 - 183.0	
- age 65-79 years	318.4	Highest	239.9		176.5 - 318.4	
- age 80+ years	260.4	Highest	202.7		138.5 - 260.4	

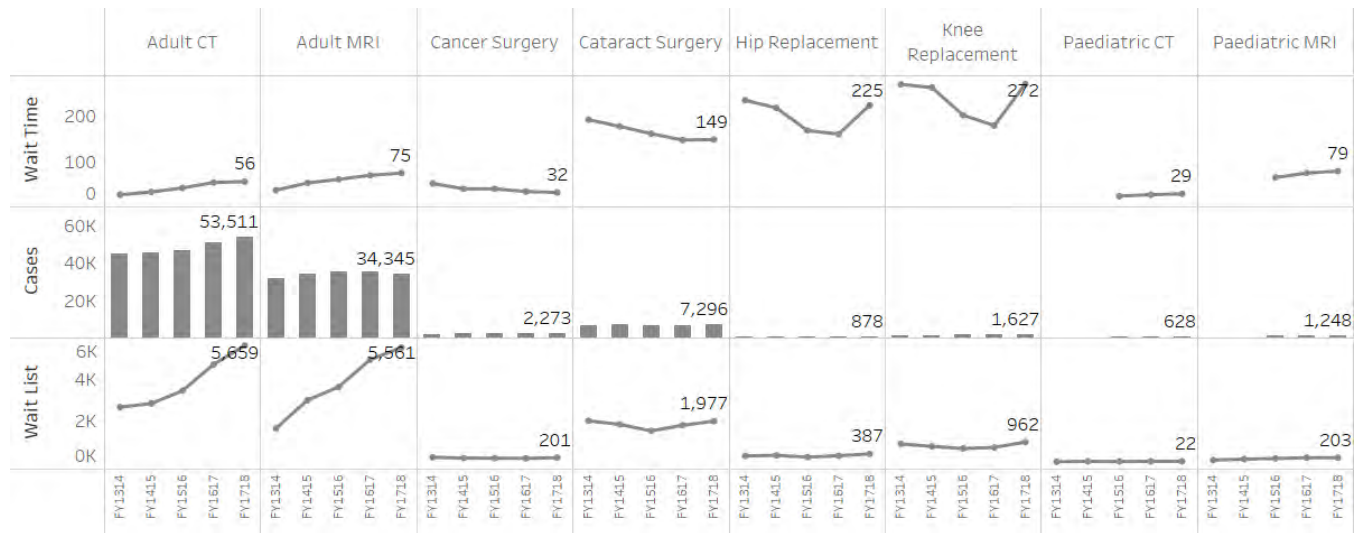
†LHIN of patient results for Ontario exclude out-of-province residents

## Surgical & Diagnostic Imaging Wait Times

### North East LHIN Priority Procedures:

#### Wait 2 90th Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

##### LHIN of Treatment

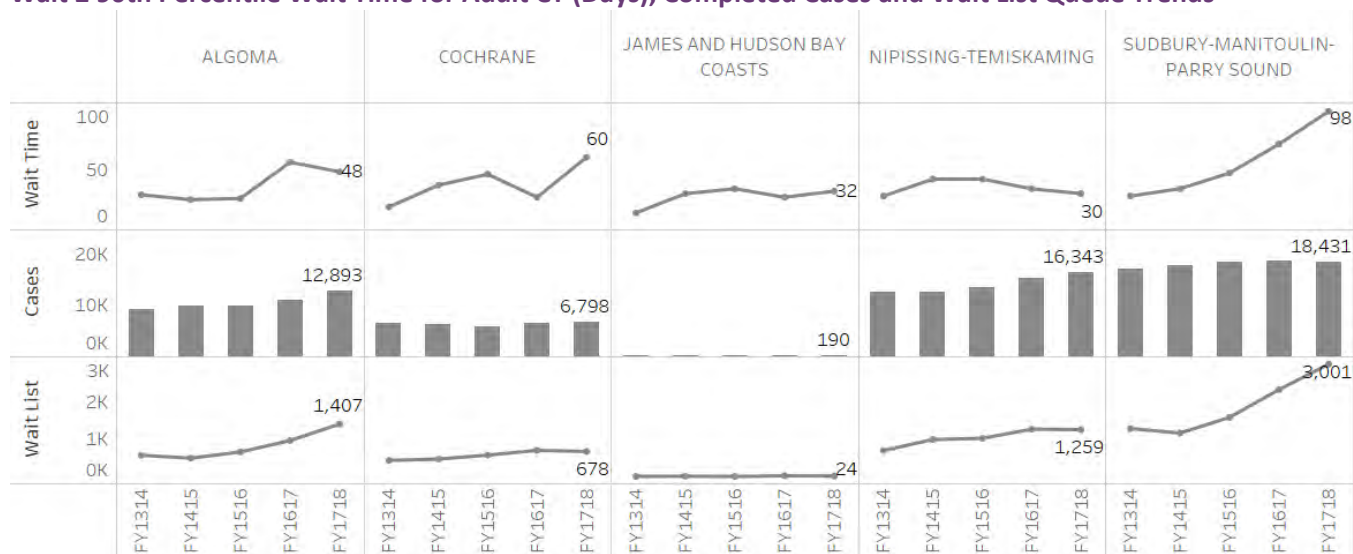


## Adult CT

- There were 53,511 adult CT scans completed in FY 2017-18; 2,893 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 56 days, 2 days longer than the previous fiscal.
- In 2017/18, hospitals in the North East LHIN had the 2<sup>nd</sup> longest wait time for adult CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 5,659 patients; 918 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Adult CT (Days), Completed Cases and Wait List Queue Trends



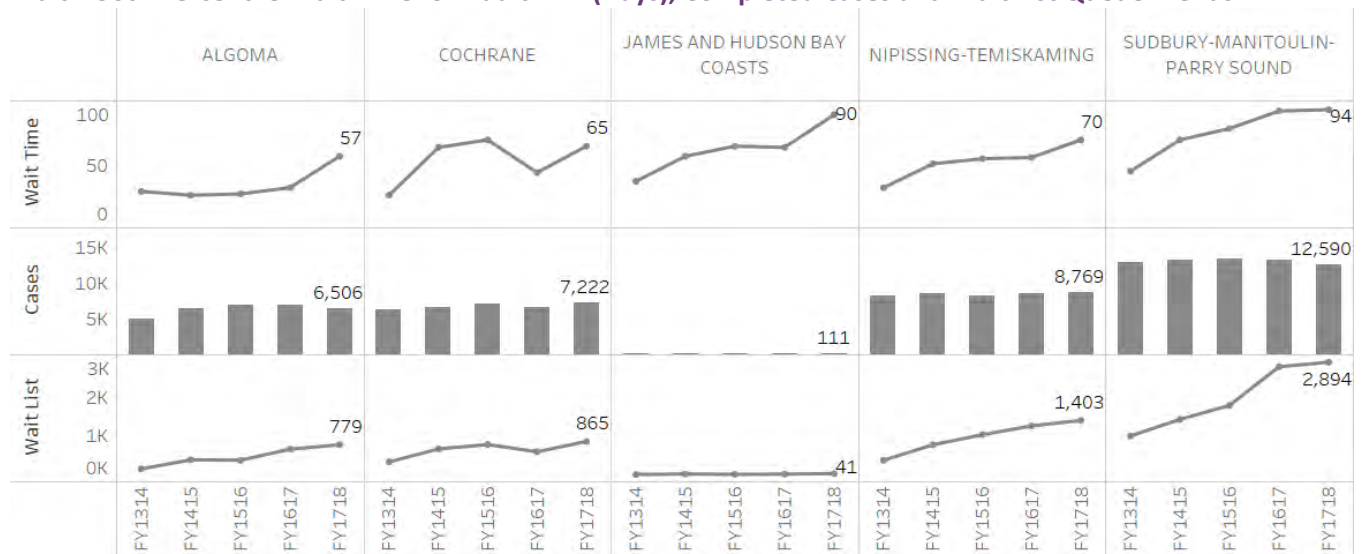
- North East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 30 days to 98 days
- Sudbury-Manitoulin-Parry Sound sub-region wait time of 98 days was the **longest** across the province for this period.

## Adult MRI

- There were 34,345 adult MRI scans completed in FY 2017-18; 705 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 75 days, 5 days longer than the previous fiscal.
- In 2017/18, hospitals in the North East LHIN had the 5<sup>th</sup> shortest wait time for adult MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 5,561 patients; 589 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Adult MRI (Days), Completed Cases and Wait List Queue Trends



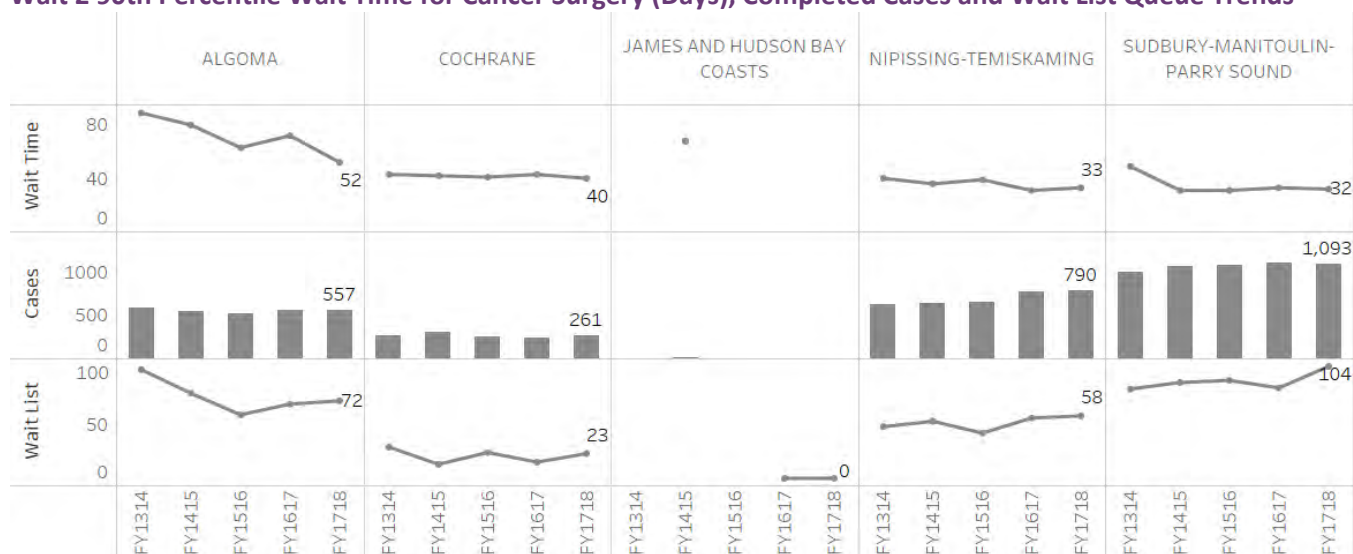
- North East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 57 days to 94 days.

## Cancer Surgery

- There were 2,273 cancer surgeries completed in FY 2017-18; 4 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 32 days, 2 days shorter than the previous fiscal.
- In 2017/18, hospitals in the North East LHIN had the **shortest** wait time for cancer surgery.
- The wait list queue at the start of FY 2017-18 was 201 patients; 31 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Cancer Surgery (Days), Completed Cases and Wait List Queue Trends



- North East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 32 days to 52 days
- Sudbury-Manitoulin-Parry Sound sub-region wait time of 32 days was the **shortest** across the province for this period.

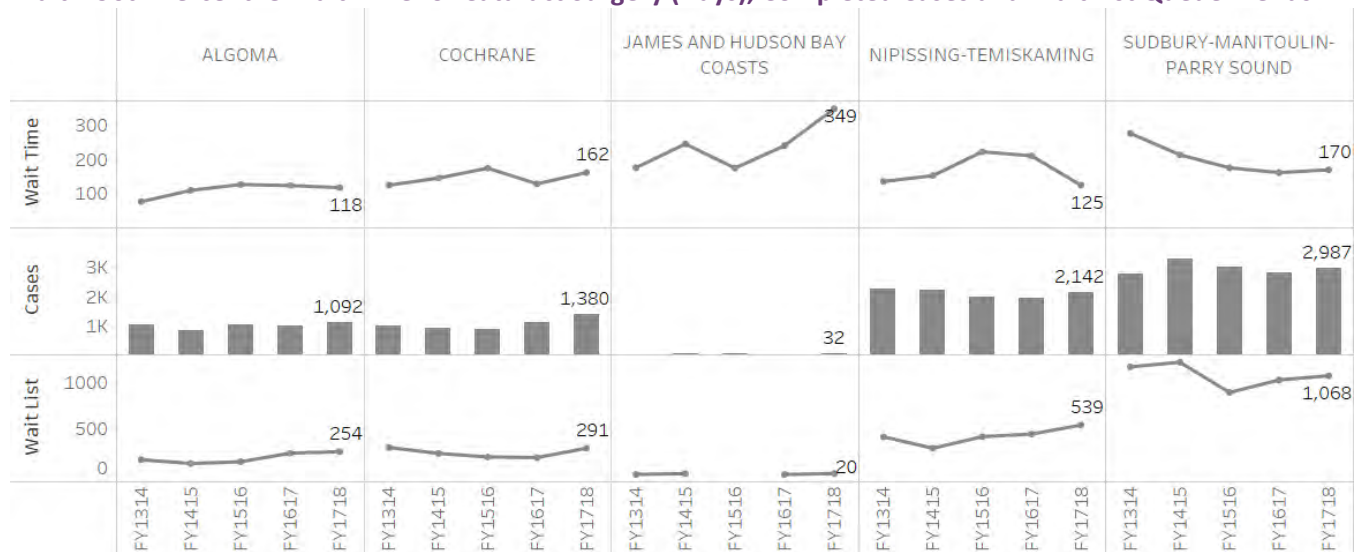


## Cataract Surgery

- There were 7,296 cataract surgeries completed in FY 2017-18; 684 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 149 days, 1 day longer than the previous fiscal.
- In 2017/18, hospitals in the North East LHIN had the 3<sup>rd</sup> shortest wait time for cataract surgery.
- The wait list queue at the start of FY 2017-18 was 1,977 patients; 198 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Cataract Surgery (Days), Completed Cases and Wait List Queue Trends



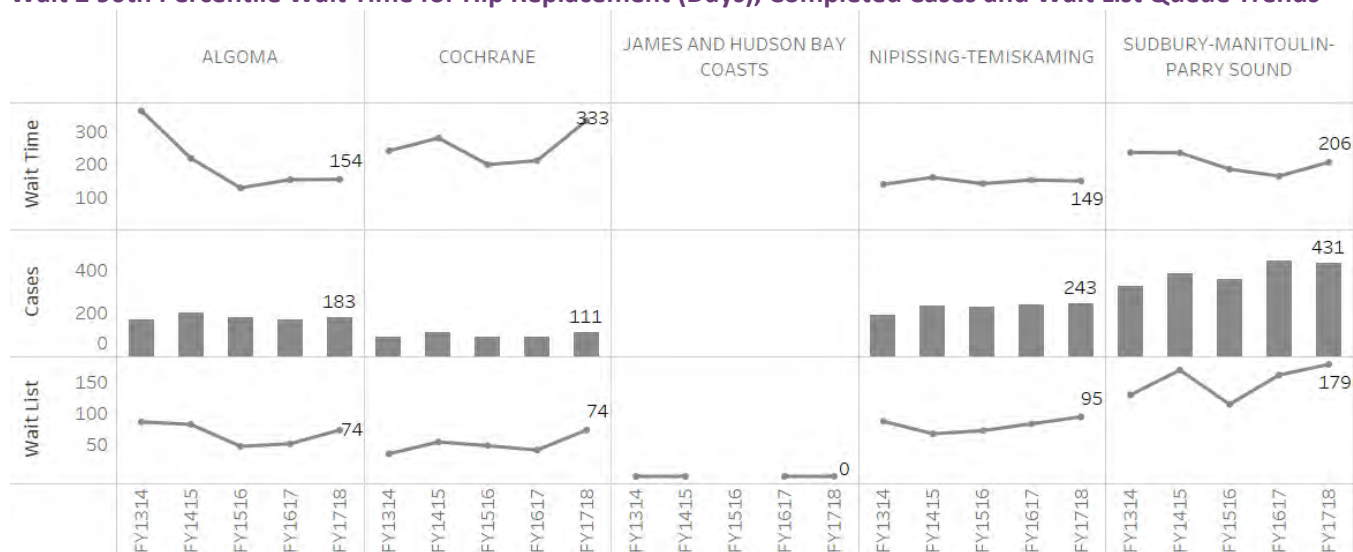
- North East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 118 days to 349 days.

## Hip Replacement

- There were 878 hip replacement surgeries completed in FY 2017-18; 41 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 225 days, 64 days longer than the previous fiscal.
- In 2017/18, hospitals in the North East LHIN had the 7<sup>th</sup> longest wait time for hip replacement surgery.
- The wait list queue at the start of FY 2017-18 was 387 patients; 92 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Hip Replacement (Days), Completed Cases and Wait List Queue Trends

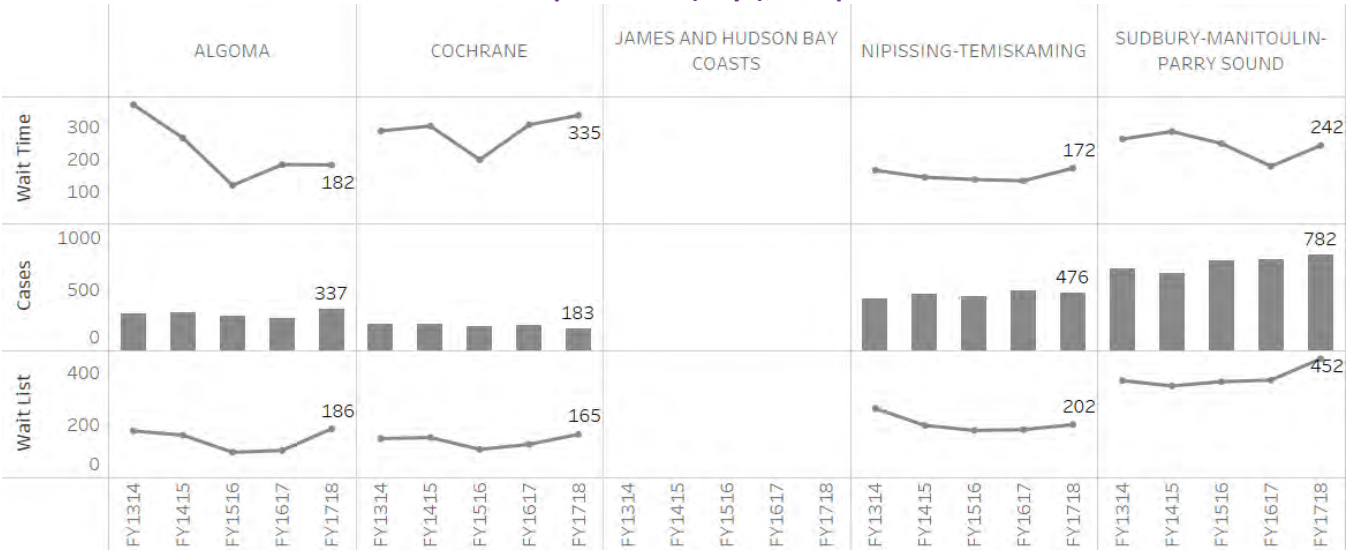


- North East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 149 days to 333 days.

# Knee Replacement

- There were 1,627 knee replacement surgeries completed in FY 2017-18; 63 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 272 days, 92 days longer than the previous fiscal.
- In 2017/18, hospitals in the North East LHIN had the 7<sup>th</sup> shortest wait time for knee replacement surgery.
- The wait list queue at the start of FY 2017-18 was 962 patients; 261 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison: Wait 2 90th Percentile Wait Time for Knee Replacement (Days), Completed Cases and Wait List Queue Trends

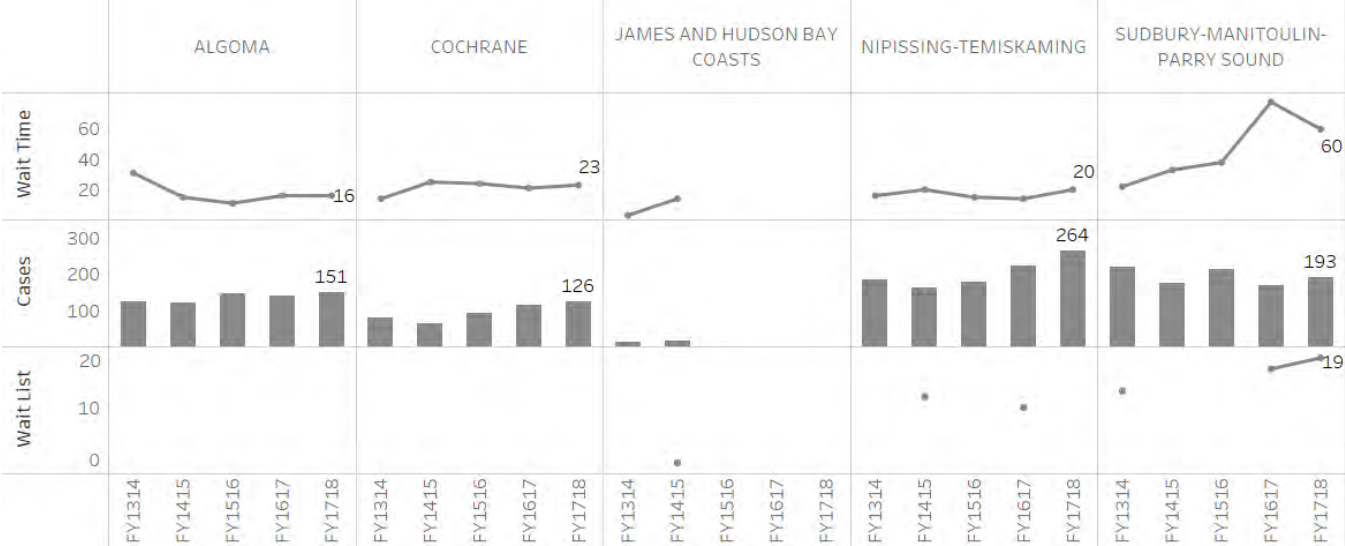


- North East LHIN sub-region (of Patient Residence) variation in FY 2017-18: 172 days to 335 days.

**Paediatric CT**

- There were 628 paediatric CT scans completed in FY 2017-18; 54 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 29 days, 2 days longer than the previous fiscal.
- In 2017/18, hospitals in the North East LHIN had the 6<sup>th</sup> longest wait time for paediatric CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 22 patients; 3 fewer queued compared to the previous fiscal.

**Sub-Region of Patient Residence Comparison:  
Wait 2 90th Percentile Wait Time for Paediatric CT (Days), Completed Cases and Wait List Queue Trends**



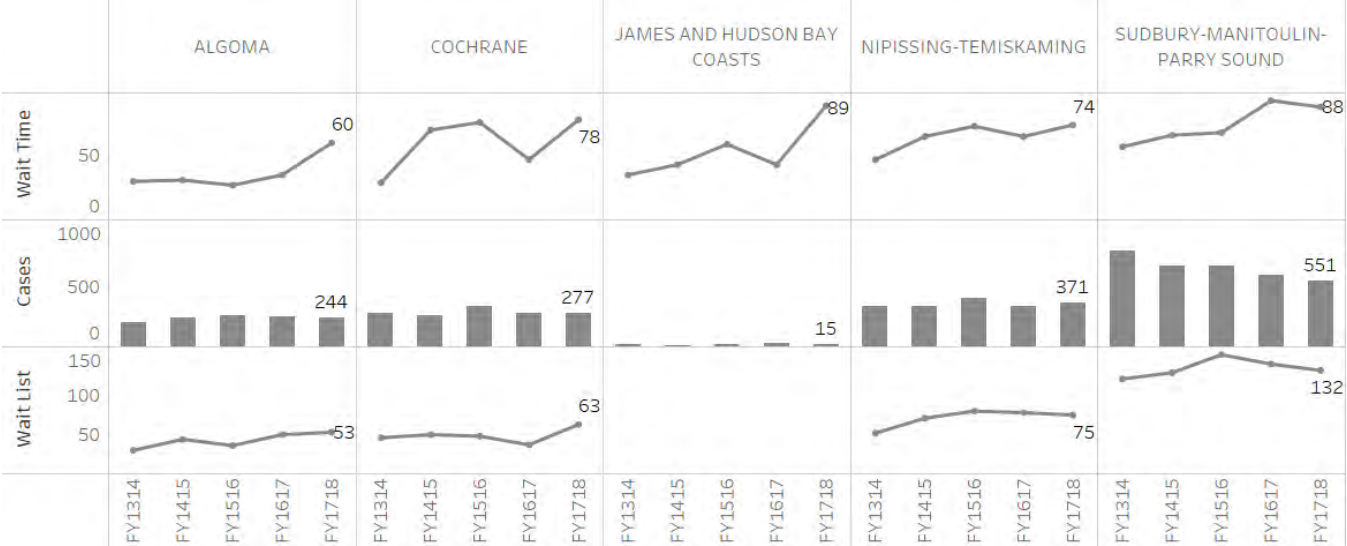
- North East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 16 days to 60 days.

# Paediatric MRI

- There were 1,248 paediatric MRI scans completed in FY 2017-18; 74 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 79 days, 4 days longer than the previous fiscal.
- In 2017/18, hospitals in the North East LHIN had the 7<sup>th</sup> shortest wait time for paediatric MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 203 patients; 3 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Paediatric MRI (Days), Completed Cases and Wait List Queue Trends



- North East LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 60 days to 89 days.

## Oncology and Dialysis

### Ambulatory Oncology Utilization

- In 2016/17, there were 40,850 ambulatory oncology visits to hospital(s) in North East LHIN.
- Since 2014/15, visits in Ontario have increased by 9%. The number of visits to North East LHIN hospitals decreased by 1% and visits for North East LHIN residents have decreased by 2%.
- Ambulatory oncology visits per 1,000 population for residents of North East LHIN is 79.2 (Ontario - 75.7).
- Oncology visits per 1,000 population for age group 0-17 years is 3.7 (Ontario - 5.0). For age group 18-44 years, the rate is 13.5 (Ontario - 15.9), for age group 65-79 years the rate is 234.2 (Ontario - 255.4), and for age group 80+ years is 169.1 (Ontario - 191.6). These rates are among the 4 lowest visit rates in the province in these age group.
- At sub-region level, the lowest (bottom 8) rates among the whole province were found in :
  - Age group 0-17 years, **Nipissing-Temiskaming** (0.9) and **James and Hudson Bay Coasts** (0.0) (Ontario - 5.0).
  - Age group 45-64 years, **Cochrane** (76.3) and **James and Hudson Bay Coasts** (62.7) (Ontario - 106.7).
  - Age group 65-79 years, **Cochrane** (199.1) and **James and Hudson Bay Coasts** (183.9) (Ontario - 255.4).
  - Age group 80+ years, **Cochrane** (102.9) and **James and Hudson Bay Coasts** (0.0) (Ontario - 191.6).
- However, the oncology visit rate in age group 45-64 years for **Algoma** sub-region is 136.7 (Ontario - 106.7). The rate is among the 8 highest visit rates in Ontario for this age group.
- 9% of ambulatory oncology visits by North East LHIN residents were to hospitals outside of North East LHIN.
- 1.2% of ambulatory oncology visits to North East LHIN hospitals were by non-North East LHIN residents.

Ambulatory Oncology	North East	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across Sub-regions
<b>LHIN of hospital</b>					
Ambulatory oncology visits	40,850	1,059,358		Decrease	
% Inflow oncology visits	1.2%				
<b>LHIN of patient</b>					
Ambulatory oncology visits	44,525	1,057,888		Stable	172 -17,201
% Outflow oncology visits	9.4%				
Visits per 1,000 population	79.2	75.7		Stable	22.6 -108.2
Visit rate/1,000 population age 0-17 years	3.7	5.0	2nd lowest		0.0 -5.3
Visit rate/1,000 population age 18-44 years	13.5	15.9	3rd lowest		9.0 -18.9
Visit rate/1,000 population age 45-64 years	98.9	106.7			62.7 -136.7
Visit rate/1,000 population age 65-79 years	234.2	255.4	4th lowest		183.9 -300.6
Visit rate/1,000 population age 80+ years	169.1	191.6	3rd lowest		0.0 -221.4

Ambulatory Oncology - Sub-Region	North East	Nipissing- Temiskaming	Sudbury- Manitoulin- Parry Sound	Algoma	Cochrane	James and Hudson Bay Coasts	North East LHIN, SR unassigned
<b>LHIN of hospital</b>							
Ambulatory oncology visits	40,850						
% Inflow oncology visits	1.2%						
<b>LHIN of patient</b>							
Ambulatory oncology visits~	44,525	10,992	17,201	11,044	4,846	172	270
% Outflow oncology visits	9.4%	15.3%	8.0%	4.7%	8.1%	6.4%	71.1%
Visits per 1,000 population	79.2	76.3	75.1	108.2	61.0	22.6	
Visit rate/1,000 population age 0-17 years	3.7	0.9	4.8	4.2	5.3	0.0	
Visit rate/1,000 population age 18-44 years	13.5	9.0	13.2	18.9	15.8	-	
Visit rate/1,000 population age 45-64 years	98.9	96.8	90.4	136.7	76.3	62.7	
Visit rate/1,000 population age 65-79 years	234.2	226.2	218.6	300.6	199.1	183.9	
Visit rate/1,000 population age 80+ years	169.1	138.8	178.5	221.4	102.9	0.0	

### Ambulatory Dialysis Utilization

- In 2016/17, there were 51,525 ambulatory dialysis visits to hospital(s) in North East LHIN, it is among the 4 LHINs with the lowest volume of visits in the province.
- Since 2014/15, visits in Ontario increased by 3%. The number of visits to North East LHIN hospitals has been stable and visits for North East LHIN residents have decreased by 2%.
- The rate of ambulatory dialysis visits per 1,000 population for residents of North East LHIN is 95.4 (Ontario - 90.4).
- Dialysis visits per 1,000 population for age group 0-17 years is 0.0 (Ontario - 1.2). Other age groups of note include age group 65-79 years (221.7) (Ontario - 285.3) and age group 80+ years (332.4) (Ontario - 426.7).
- Dialysis visits per 1,000 population for age group 18-44 years is 36.3 (Ontario - 21.8). The rate is among the 4 highest visit rates in the province for this age group.
  - Sub-region **James and Hudson Bay Coasts** has high visit rates in Ontario across various ages groups, of note, 18-44 years (168.6) (Ontario - 21.8), 45-64 years (505.0) (Ontario - 105.3), and 65-79 years (847.5) (Ontario - 285.3).
  - Within age group 80+ years, **James and Hudson Bay Coasts** (0.0) and **Cochrane** (118.3) are among the 8 lowest visit rates in Ontario (426.7).
- 5% of ambulatory dialysis visits by North East LHIN residents were to hospitals outside of North East LHIN.
- 0.9% of ambulatory dialysis visits to North East LHIN hospitals were by non-North East LHIN residents.

*Note: Ambulatory dialysis visit volumes for residents in age group 0-17 are low to none across all sub-regions. Caution should be used when interpreting visit rates in this age group.*

Ambulatory Dialysis	North East	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across Sub-regions
<b>LHIN of hospital</b>					
Ambulatory dialysis visits	51,525	1,269,794	3rd lowest	Stable	
% Inflow dialysis visits	0.9%				
<b>LHIN of patient</b>					
Ambulatory dialysis visits	53,668	1,264,676		Stable	477 -22,529
% Outflow dialysis visits	4.9%				
Visits per 1,000 population	95.4	90.4		Stable	65.4 -208.0
Visit rate/1,000 population age 0-17 years	0.0	1.2			0.0 -0.0
Visit rate/1,000 population age 18-44 years	36.3	21.8	2nd highest		29.2 -168.6
Visit rate/1,000 population age 45-64 years	109.5	105.3			86.9 -505.0
Visit rate/1,000 population age 65-79 years	221.7	285.3	2nd lowest		161.8 -847.5
Visit rate/1,000 population age 80+ years	332.4	426.7	2nd lowest		0.0 -491.8



Ambulatory Dialysis - Sub-Region	North East	Nipissing-Temiskaming	Sudbury-Manitoulin-Parry Sound	Algoma	Cochrane	James and Hudson Bay Coasts	North East LHIN, SR unassigned
<b>LHIN of hospital</b>							
Ambulatory dialysis visits	51,525						
% Inflow dialysis visits	0.9%						
<b>LHIN of patient</b>							
Ambulatory dialysis visits~	53,668	12,370	22,529	11,518	5,193	1,581	477
% Outflow dialysis visits	4.9%	8.0%	1.0%	0.3%	0.0%	84.9%	0.6%
Visits per 1,000 population	95.4	85.9	98.3	112.8	65.4	208.0	
Visit rate/1,000 population age 0-17 years	0.0	0.0	0.0	0.0	0.0	0.0	
Visit rate/1,000 population age 18-44 years	36.3	29.2	35.4	37.1	33.9	168.6	
Visit rate/1,000 population age 45-64 years	109.5	86.9	118.4	110.8	89.1	505.0	
Visit rate/1,000 population age 65-79 years	221.7	205.0	233.6	241.6	161.8	847.5	
Visit rate/1,000 population age 80+ years	332.4	325.6	303.6	491.8	118.3	0.0	

\*Ranking: Top or bottom 4 ranking in the province, compared to other LHINs.

^ Trend: "Increase/decrease" when there is a change more than 1%, otherwise, "stable"

~ There are some records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables with the LHIN name but as SR unassigned.

## Home Care

### Home Care Patient Referrals

- In 2017/18, there were 37,596 active home care patient referrals in the North East LHIN.
  - The **Sudbury-Manitoulin-Parry Sound** sub-region had the largest proportion of North East LHIN patient referrals at 14,839.
  - Across Ontario's sub-regions, **James and Hudson Bay Coasts** had the **lowest** active patient referrals with 99.

### Active Patient Referrals 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
Algoma	6,669	7,015	7,071	
Cochrane	4,736	4,997	5,000	
James and Hudson Bay Coasts	91	83	99	<b>Lowest</b>
Nipissing-Temiskaming	9,245	9,666	9,866	
Sudbury-Manitoulin-Parry Sound	13,794	14,410	14,839	
Out of LHIN Region	162	213	240	
Unknown Region	1,046	858	481	
North East Total	35,743	37,242	37,596	

\*Rank based on 2017/18 active patient referrals

### Home Care Referral Rate

- In 2017/18, North East LHIN's utilization rate was the second highest in the province at 66.7 referrals per 1,000 (compared to 48.2 for Ontario).
  - Within the LHIN, the utilization rate ranged from 13.0 referrals per 1,000 in James Bay and Hudson Bay Coast to 69.2 in **Algoma**.
  - Across Ontario's sub-regions, the utilization rate for **James and Hudson Bay Coasts** was the **lowest** rate in the province. The utilization rate for **Algoma** was the eighth highest in Ontario.

### Referrals (per 1,000 population) 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
Algoma	65.4	68.7	69.2	8 <sup>th</sup> highest
Cochrane	59.0	62.9	63.0	
James Bay and Hudson Bay Coast	11.9	10.9	13.0	<b>Lowest</b>
Nipissing-Temiskaming	64.1	67.1	68.5	
Sudbury-Manitoulin-Parry Sound	60.5	62.9	64.8	
North East Total	63.4	66.2	66.7	

\*Rank based on 2017/18 utilization rates

## Home Care Services

- In North East LHIN, there were 765,339 home care visits and 1,303,424 service hours in 2017/18.
- The rate of home care visits was 1,358.7 per 1,000 population and the rate of service hours was 2,313.9 per 1,000 population.
- North East had the highest physiotherapy visits per 1,000 population, 2<sup>nd</sup> highest occupational therapy visits per 1,000 population, highest case management visits per 1,000 population, and 2<sup>nd</sup> lowest nursing shift visits per 1,000 population.
- The following sub-regions had among the eight highest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - Nipissing-Temiskaming had the 3<sup>rd</sup> highest rate of case management visits.
  - Nipissing-Temiskaming had the 3<sup>rd</sup> highest rate of nutrition visits.
  - Nipissing-Temiskaming had the 3<sup>rd</sup> highest rate of occupational therapy visits.
  - Nipissing-Temiskaming had the 7<sup>th</sup> highest rate of physiotherapy visits.
  - Nipissing-Temiskaming had the 7<sup>th</sup> highest rate of social work visits.
  - Nipissing-Temiskaming had the 4<sup>th</sup> highest rate of total visits rate.
  - Sudbury-Manitoulin-Parry Sound had the 2<sup>nd</sup> highest rate of case management visits.
  - Sudbury-Manitoulin-Parry Sound had the 5<sup>th</sup> highest rate of nutrition visits.
  - Sudbury-Manitoulin-Parry Sound had the 3<sup>rd</sup> highest rate of physiotherapy visits.
  - Sudbury-Manitoulin-Parry Sound had the 3<sup>rd</sup> highest rate of social work visits.
  - Sudbury-Manitoulin-Parry Sound had the 6<sup>th</sup> highest rate of total visits rate.
  - Algoma had the 5<sup>th</sup> highest rate of nursing visits.
  - Algoma had the **highest** rate of case management visits.
  - Algoma had the 6<sup>th</sup> highest rate of occupational therapy visits.
  - Algoma had the 2<sup>nd</sup> highest rate of physiotherapy visits.
  - Algoma had the 6<sup>th</sup> highest rate of social work visits.
  - Algoma had the 2<sup>nd</sup> highest rate of total visits rate.
  - Cochrane had the 4<sup>th</sup> highest rate of case management visits.
  - Cochrane had the **highest** rate of nutrition visits.
- The following sub-regions had among the eight lowest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - Nipissing-Temiskaming had the 5<sup>th</sup> lowest rate of nursing shift hours.
  - Cochrane had the 6<sup>th</sup> lowest rate of nursing shift hours.
  - Cochrane had the 2<sup>nd</sup> lowest rate of personal support hours.
  - Cochrane had the 2<sup>nd</sup> lowest rate of total hours.
  - James and Hudson Bay Coasts had the 7<sup>th</sup> lowest rate of case management visits.
  - James and Hudson Bay Coasts had the **lowest** rate of nursing visits.
  - James and Hudson Bay Coasts had the **lowest** rate of occupational therapy visits.
  - James and Hudson Bay Coasts had the **lowest** rate of physiotherapy visits.
  - James and Hudson Bay Coasts had the **lowest** rate of total visits rate.
  - James and Hudson Bay Coasts did not report nursing shift hours, personal support hours, total hours, nutrition visits and social work visits.
- Between 2014/15 and 2017/18 there was an increase in total visits of 29.8% and an increase in total hours of 10.9% in North East LHIN. During this period nursing visits increased by 22.9%, physiotherapy visits increased by 15.1%, occupational therapy visits increased by 19.3%, case management visits increased by 47.0% and nursing shift hours increased by 56.7%.

- Between 2014/15 and 2017/18 nursing visits rate increased by 23.6%, physiotherapy visit rate increased by 15.7%, occupational therapy visit rate increased by 20.0%, case management visit rate increased by 47.8% and nursing shift hours rate increased by 57.6%.

### Summary of Home Care Service by Type, North East LHIN, 2017/18

	North East LHIN Residents	Ontario Residents*	Comments	LHIN % Change 2014/15 to 2017/18	Range across North East Sub- regions**
<b>Service Visits</b>					
<b>All Visits†</b>	765,339	11,528,751		29.8%	1,318-301,630
Nursing Visit	376,714	7,539,458		22.9%	492-144,345
Physiotherapy	52,811	738,685		15.1%	29-23,781
Occupational Therapy	42,250	615,215		19.3%	23-15,446
Social Work	8,037	56,973	Highest	46.0%	927-3,785
Nutrition and Dietetic	4,699	47,949		66.2%	568-1,713
Speech Language Pathology	12,297	273,735		3.9%	136-4,986
Case Management	265,068	2,211,107	2 <sup>nd</sup> highest	47.0%	638-106,662
<b>Service Hours</b>					
<b>All Hours</b>	1,303,424	34,396,919		10.9%	77,969-634,446
Nursing Shift	46,699	2,366,020	2 <sup>nd</sup> lowest	56.7%	4,798-26,480
Personal Support Work and Homemaking	1,096,055	31,319,568		-4.4%	67,924-534,815
Respite	160,670	711,331	2 <sup>nd</sup> highest	n/a	5,247-73,152
<b>Service Visits per 1,000 population</b>					
<b>All Visits per 1,000 population †</b>	1,358.7	810.2	Highest	30.6%	173.4-1,589.8
Nursing Visit	668.8	529.8		23.6%	64.7-822.4
Physiotherapy	93.8	51.9	Highest	15.7%	3.8-110.4
Occupational Therapy	75.0	43.2	2 <sup>nd</sup> highest	20.0%	3.0-94.5
Social Work	14.3	4.0	2 <sup>nd</sup> highest	46.8%	11.7-16.5
Nutrition and Dietetic	8.3	3.4	Highest	67.1%	5.6-12.6
Speech Language Pathology	21.8	19.2		4.5%	17.9-23.5
Case Management	470.6	155.4	Highest	47.8%	83.9-517.8
<b>Service Hours per 1,000 population</b>					
<b>All Hours</b>	2,313.9	2,417.3		11.5%	982.1-2,768.5
Nursing Shift	82.9	166.3	2 <sup>nd</sup> lowest	57.6%	49.4-115.5
Personal Support Work and Homemaking	1,945.8	2,201.0		-3.8%	855.6-2,333.8
Respite	285.2	50.0	Highest	n/a	66.1-358.8

\*Not all LHINs offer the same services or report case management services in the same manner.

\*\*Service rates per 1,000 population are calculated using 2017/18 service levels divided by 2016 population estimates from the Ministry of Finance. Typically 2017 population estimates would be used but they were not available at the sub-region level at time of calculation.

†Includes visits for respiratory, psychology, and 'other' service types (not shown), which are not consistently reported/available in all LHINs.

n/a – not applicable due to significant changes in funding and recording

## Palliative Care

### Services Received at Home by Palliative Patients FY 2016/2017

	Provincial Ranking	LHIN	Range Across North East sub-regions
Percent of patients who received palliative home visits(home servicers or physician) in the last 90 days of life	2	31%	6% to 34%
Percent of patients who received palliative home servicers in the last 90 days of life	7	25%	0% to 31%
Percent of patients who had physician home visits in the last 90 days of life	2	19%	6% to 22%
Percent of patients who receive palliative home services who died in hospital	14	37%	25% to 54%
Percent of palliative care patients discharged home from hospital with the discharge status "Home with Support"	2	79%	11% to 84%
Mean days spent at home/residence in last 6 months of life	5	159 days	133 to 162 days

*\*Ranking in the province, compared to other LHINs.*

### Interpretation

- In 2016/2017, 31% of patients in North East LHIN received palliative home visits in the last 90 days of life, which is lower than the provincial value by 5%.
- Within the North East LHIN, there is substantial variation in sub-regions report percentages receiving home visits in the last 90 days of life:
  - **James and Hudson Bay Coasts** sub-region reports the lowest percentage at 6% (lowest in the province) and **Algoma** sub-region reports the highest percentage at 34%, one of the highest percentages in the province.
- In 2016/2017, the percent of patients in North East LHIN who received palliative home servicer visits in the last 90 days of life was on par with the provincial rate at 25%.
  - **James and Hudson Bay Coasts** sub-region reported 0% patients received home servicer visits in the last 90 days of life. **Algoma** sub-region reports the highest percentage among the sub-regions at 31, and is increasing on mean at 4.4% per year.
- In the North East LHIN, the percentage of patients who received physician home visits in the last 90 days of life was 19%, which is 9% lower than the provincial value.
  - **Algoma** sub-region reported the highest percentage at 22%, which is less than the provincial value. **James and Hudson Bay Coasts** sub-region reported the lowest percentage of palliative patients with physician home visits in the last 90 days of life at 6%.
- Across Ontario, North East LHIN reported that 37% of patients who received palliative home services who died in hospital, ranking 14<sup>th</sup> of 14 LHINs.
- There is dramatic variation of percentages of patients who received palliative care who died in hospital across North East sub-regions.

- The **Algoma** sub-region has the lowest percentage of palliative patients dying in hospital at 25%, matching the provincial percentage. On the other hand, **Cochrane** sub-region reports 54% of patients who received palliative care died in hospital. The respective estimate for **James and Hudson Bay Coasts** sub-region was undefined.
- Across LHINs, North East reports that 78% of palliative care patients discharged home with “Home with Supports” status in 2016/2017, 7% lower than the provincial 85%.
  - Within North East, the sub-regions vary from 11% in **James and Hudson Bay Coasts** sub-region to 84% in Couchiching sub-region regarding palliative patients discharged with “Home with Supports” status, which is one of the highest percentages in the province.
- North East LHIN’s mean number of days at home among palliative patients in the last 6 months across all LHINs was 159 days, marginally lower than the provincial value of 160 days.
  - North East sub-regions vary in mean number of days that palliative patients spend at home in their last 6 months, ranging from 133 days in the **James and Hudson Bay Coasts** sub-region to 162 days in the **Algoma** sub-region.

#### **Palliative Hospital System Measures, North East (FY 2016/17)**

	<b>Provincial Ranking</b>	<b>LHIN</b>	<b>Range Across the Sub-regions</b>
Percent of patients who had one or more unplanned ED visits in the last 30 days of life	14	58%	54% - 76%
Percent of patients who had two or more unplanned ED visits in the last 30 days of life	13	18%	16% - 43%
Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days	14	29%	19% - 40%
Percent of people who die in hospital (all hospital settings and acute only)	9	53%	44% - 75%
Percent of people who die in acute hospital	13	49%	42% - 69%
Percent of patients who had two or more acute inpatient admissions in the last 30 days of life	13	6%	5% - 16%

### LHIN Comparison

- North East LHIN was **significantly higher** than the province in the following indicators:
  - Percent of patients who had one or more unplanned ED visits in the last 30 days of life
  - Percent of patients who had two or more unplanned ED visits in the last 30 days of life
  - Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days
  - Percent of people who died in acute hospital
    - For percent of patients who had one or more unplanned ED visits in the last 30 days of life, **Sudbury-Manitoulin-Parry Sound** and **Cochrane** sub-regions were **significantly higher** than the province.
    - For percent of patients who had two or more unplanned ED visits in the last 30 days of life, **Sudbury-Manitoulin-Parry Sound** and **Cochrane** sub-regions were **significantly higher** than the province.
    - For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, **Sudbury-Manitoulin-Parry Sound** and **Cochrane** sub-regions were **significantly higher** than the province.
    - For percent of people who died in hospital (all hospital settings and acute only), Algoma sub-region was **significantly lower** than the province. **Nipissing-Temiskaming** and **Cochrane** sub-regions were **significantly higher** than the province.
    - For percent of people who died in acute hospital, **Sudbury-Manitoulin-Parry Sound** and **Cochrane** sub-regions were **significantly higher** than the province.

### Change Over Time

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of 0% was observed across the North East LHIN ranking 2nd provincially.
  - Across sub-regions, **James and Hudson Bay Coasts** (10%) and **Algoma** (-1%) were observed highest and lowest, respectively.
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of 2% was observed across the North East LHIN ranking 1st provincially.
  - Across sub-regions, **James and Hudson Bay Coasts** (32%) and **Cochrane** (-1%) were observed highest and lowest, respectively.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, a mean annual growth rate of 3% was observed across the North East LHIN ranking 2<sup>nd</sup> provincially.
  - Across sub-regions, **James and Hudson Bay Coasts** (from 0% in FY 2013/14 to 40% in FY 2016/17) and **Algoma** (-2%) were observed highest and lowest, respectively.
- For percent of people who die in hospital (all hospital settings and acute only), a mean annual growth rate of 0% was observed across the North East LHIN which was the lowest in the province.
  - Across sub-regions, **James and Hudson Bay Coasts** (5%) and **Algoma** (-3%) were observed highest and lowest, respectively.
- For percent of people who die in acute hospital, a mean annual growth rate of 0% was observed across the North East LHIN ranking 3rd provincially.
  - Across sub-regions, **James and Hudson Bay Coasts** (3%) and **Algoma** (-3%) were observed highest and lowest, respectively.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, a mean annual growth rate of 2% was observed across the North East LHIN ranking 2nd provincially.
  - Across sub-regions, **James and Hudson Bay Coasts** (36%) and **Algoma** (-5%) were observed highest and lowest, respectively.





## Emergency Department

### Emergency Department Utilization

- In 2016/17, there were 454,717 ED visits to North East LHIN hospitals, an increase of 4.0% from 2013/14. In the same time-period, the number of ED visits in the province increased by 6.5%.
- North East's crude ED visit rate of 806.6 ED visits per 1,000 population was 2nd highest in the province, almost double the provincial rate (442.2). This represented a 5.2% increase in crude visit rate in the LHIN from 2013/14 during which time the provincial crude visit rate climbed by 3.0%.
- Age adjusted ED visit rates per 1,000 population were highest for seniors 80+ at 1,203 visits per 1,000 population, following by adults aged 18-44 years (850 visits / 1,000 population), seniors aged 65-79 (841 visits per 1,000 population), children aged 0-17 (782 visits per 1,000 population) while adults aged 45-64 years had the lowest usage rate in LHIN at 691 visits per 1,000 population.
  - **Sudbury-Manitoulin-Parry Sound** residents had the lowest ED visit rate of North East's 5 sub-regions, at 600 visits per 1000 population.
  - **James and Hudson Bay Coasts** sub-region had the highest crude ED visit rate in the LHIN at 2253 visits per 1,000 population, the highest in the province and close to double the 2<sup>nd</sup> highest sub-region.
  - Overall, none of North East's 5 sub-regions had crude ED visit rates below the provincial value, while 3 had crude ED visit rates among the highest 10% in the province (**James and Hudson Bay Coasts**, **Cochrane** and **Nipissing-Temiskaming** at 2253, 1135, and 841 respectively).
- Between 2013/14 and 2016/17 the number of North East LHIN residents visiting the ED with lower acuity levels (CTAS IV and V) decreased 1.2% to 220,362 visits. During this same time-period, visits by Ontario residents with CTAS IV and V declined 2.2%.
- Between 2013/14 and 2016/17 the number of visits with CTAS III increased by 11.5% and CTAS I & II increased by 3.4%, while provincially these numbers increased by 9.4% and 15.8% respectively.
- Overall, North East LHIN ranked highest in the province in proportion of ED visits by residents that were lower acuity (48.6% for North East, and 33.5% for the province).
  - 5 out of 5 of North East's sub-regions had a higher proportion of ED visits with lower acuity (CTAS IV and V) than the province.
  - **Algoma** had the lowest proportion of ED visits with lower acuity of the LHIN's 5 sub-regions, at 34.3%, while **Cochrane** had the highest at 59.5%.
- The most common causes for ED visits by North East LHIN residents were Follow-up examinations and other non-emergent conditions, diseases or disorders of the ear, nose or throat, and diseases or disorders of the digestive system and accounted for 11.1%, 10.7%, and 8.6% of ED visits by North East LHIN residents respectively.
- 11.4% of the patients who visited ED in North East LHIN hospitals arrived via ambulance in FY16/17, as compared to 15.6% for the province.
  - The proportion of ED visits that arrived by ambulance ranged from a low of 7.2% in **Cochrane** sub-region to a high of 15.3% in **Sudbury-Manitoulin-Parry Sound**.
- 8.3% of the patients who visited ED in North East LHIN hospitals were admitted in FY16/17, as compared to 9.8% for the province.
  - The proportion of ED visits that resulted in a patient being admitted to hospital ranged from a low of 3.7% in **James and Hudson Bay Coasts** sub-region to a high of 11.2% in **Sudbury-Manitoulin-Parry Sound**.
- 3.3% of the patients who visited ED in North East LHIN hospitals left without completing treatment in FY16/17, as compared to 3.9% for the province.

- 4.2% of ED visits to North East LHIN hospitals were by patients who did not reside in North East LHIN (inflow). This compares to 4.0% of ED visits by North East LHIN residents that were accessed in other LHINs (outflow).

#### Top 10 Reasons for Emergency Department Visits by LHIN, 2016/17

Leading CACS groups, by LHIN of patient	North East	
	#	% of total visits
(B187) Follow-up Examination and Other Non Emergent Condition	50,376	11.1%
(B112) Disease or Disorder Ear, Nose or Throat	48,423	10.7%
(B128) Disease or Disorder Digestive System	38,918	8.6%
(B132) Disease or Disorder Skin & Breast	35,068	7.7%
(B136) Disease or Disorder Musculoskeletal and Connective Tissue	29,900	6.6%
(B180) Contusion, Dislocation, Nerve & Other Soft Tissue Injury	27,104	6.0%
(B116) Disease or Disorder Respiratory System	25,690	5.7%
(B122) Other Disease or Disorder Cardiac System	21,291	4.7%
(B005) Other Condition with Acute Admission/Transfer	18,879	4.2%
(B146) Other Disease or Disorder Urinary System	17,561	3.9%

Measure—LHIN of Hospital	North East		Ontario	
	#	LHIN % change 2013/14-2016/17	#	Ontario % change 2013/14-2016/17
Visits	454,717	4.0%	6,312,121	6.5%
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	59,631	3.1%	1,284,741	15.9%
III (urgent)	160,202	11.3%	2,876,687	9.6%
IV & V (less urgent/non urgent)	224,161	-1.4%	2,128,914	-2.0%
<b>% visits by CTAS level†</b>				
I & II (resuscitation/emergent)	13.1%		20.4%	
III (urgent)	35.2%		45.6%	
IV & V (less urgent/non urgent)	49.3%		33.7%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	11.4%		15.6%	
% of visits that were admitted	8.3%		9.8%	
% of visits that left without completing treatment	3.3%		3.9%	
<b>% Inflow visits</b>	4.2%			

Measure—LHIN of Patient	North East		Ontario	
	#	LHIN % change 2013/14- 2016/17	#	Ontario % change 2013/14- 2016/17
Visits	453,568	4.3%	6,183,151	6.4%
ED visit rate/1,000 population	806.6	5.2%	442.2	3.0%
<b>Age-specific ED visit rates per 1,000 population</b>				
ED visit rate, age 0-17 years	782		429	
ED visit rate, age 18-44 years	850		411	
ED visit rate, age 45-64 years	691		388	
ED visit rate, age 65-79 years	841		516	
ED visit rate, age 80+ years	1,203		913	
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	60,783	3.4%	1,265,237	15.8%
III (urgent)	161,827	11.5%	2,825,385	9.4%
IV & V (less urgent/non urgent)	220,362	-1.2%	2,070,962	-2.2%
<b>% visits by CTAS level</b>				
I & II (resuscitation/emergent)	13.4%		20.5%	
III (urgent)	35.7%		45.7%	
IV & V (less urgent/non urgent)	48.6%		33.5%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	11.6%		15.8%	
% of visits that were admitted	8.6%		9.9%	
% of visits that left without completing treatment	3.3%		3.8%	
% Outflow visits	4.0%			

# ED Visit Utilization Summary, by sub-region of Patient Residence, 2016/17 North East LHIN

	Nipissing-Temiskaming	Sudbury-Manitoulin-Parry Sound	Algoma	Cochrane	James and Hudson Bay Coasts	LHIN	Ontario
<b>Sub-region of patient residence</b>							
Visits	121,126	137,596	80,931	90,144	17,127	453,568	6,183,151
ED visit rate/1,000 population	841	600	793	1135	2253	806.6	442
% Outflow to other LHINs	8.0%	2.8%	2.3%	1.4%	1.7%	4.0%	
<b>Age-specific ED visit rates per 1,000 population</b>							
ED visit rate, age 0-17 years	831	519	764	1157	1758	782	429
ED visit rate, age 18-44 years	930	584	841	1227	2347	850	411
ED visit rate, age 45-64 years	702	521	678	957	2838	691	388
ED visit rate, age 65-79 years	826	713	820	1182	2612	841	516
ED visit rate, age 80+ years	1200	1115	1129	1504	3323	1,203	913
<b># visits by CTAS level</b>							
# CTAS Level I & II visits	12650	23293	18439	5633	324	60,783	12715
# CTAS Level III visits	42614	52155	33835	29616	2147	161,827	20741
# CTAS Level IV & V visits	65618	60632	27784	53612	9449	220,362	13353
<b>% visits by CTAS level</b>							
I & II (resuscitation/emergent)	10.4%	16.9%	22.8%	6.2%	1.9%	13.4%	20.5%
III (urgent)	35.2%	37.9%	41.8%	32.9%	12.5%	35.7%	45.7%
IV & V (less urgent/non urgent)	54.2%	44.1%	34.3%	59.5%	55.2%	48.6%	33.5%
<b>Other visit characteristics</b>							
% of visits that arrived by ambulance	10.0%	15.3%	12.7%	7.2%	11.9%	11.6%	15.8%
% of visits that were admitted	8.3%	11.2%	8.4%	6.1%	3.7%	8.6%	9.9%
% of visits that left without completing treatment	3.2%	3.1%	3.9%	3.5%	3.2%	3.3%	3.8%

## Emergency Department Performance

- Emergency department (ED) volumes increased from fiscal year 2013/14 (300,731 visits) to 2017/18 (314,113 visits), with North East LHIN sites ranging from 12,116 to 75,387 visits in fiscal year 2017/18.
- Overall, the 90<sup>th</sup> percentile ambulance offload time in fiscal year 2017/18 (19 mins) increased since fiscal year 2013/14 (18 mins), with a range of four to 28 minutes across North East LHIN sites in fiscal year 2017/18.
- The 90<sup>th</sup> percentile time to physician initial assessment (PIA) had remained consistent (three hours) between fiscal years 2013/14 and 2017/18, with the percent within the two hour target for PIA increasing from fiscal year 2013/14 (76%) to 2017/18 (78%). In fiscal year 2017/18, North East LHIN sites ranged from two to four hours for the 90<sup>th</sup> percentile time to PIA and from 62% to 88% for percentage with time to PIA within two hours.
- The 90<sup>th</sup> percentile consult request to arrival time remained stable (one hour) from fiscal year 2013/14 to fiscal year 2017/18, with North East LHIN sites having a range of zero to four hours in 2017/18. The percentage of consults within two hours from request was 95% in both fiscal years 2013/14 and 2017/18, with North East LHIN sites ranging from 76% to 100% in fiscal year 2017/18.
- The 90<sup>th</sup> percentile time to disposition remained stable (six hours) from fiscal year 2013/14 to 2017/18, with North East LHIN sites ranging from four to eight hours in fiscal year 2017/18.
- The 90<sup>th</sup> percentile ED length of stay was seven hours in both fiscal years 2013/14 to 2017/18, with North East LHIN sites ranging from four to nine hours in fiscal year 2017/18.
- Non-admitted low acuity ED volumes decreased from fiscal year 2013/14 (125,860) to 2017/18 (117,488), with North East LHIN sites ranging from 9,105 to 19,132 in fiscal year 2017/18.
- For non-admitted low acuity visits, the ED length of stay and time to disposition both remained consistent (four hours) over time from fiscal year 2013/14 to 2017/18, with North East LHIN sites having a range of three to six hours for both measures in 2017/18.
- The percent of non-admitted low acuity visits within target of four hours decreased slightly over time, from 90% in fiscal year 2013/14 to 89% in 2017/18. In fiscal year 2017/18, North East LHIN sites ranged from 76% to 96%.
- The volumes of non-admitted high acuity ED visits increased between fiscal year 2013/14 (141,907) to 2017/18 (165,307), with North East LHIN sites ranging from 1,896 visits to 44,513 visits in fiscal year 2017/18.
- For non-admitted high acuity visits from fiscal year 2013/14 to 2017/18, the 90<sup>th</sup> percentile time to disposition (six hours), ED length of stay (six hours) and percentage within target of eight hours (97%) all remained stable.
- The volumes of ED admissions decreased from fiscal year 2013/14 (32,743) to 2017/18 (31,243), with North East LHIN sites ranging from 378 to 11,741 in fiscal year 2017/18. Across all years, the admission rates increased with acuity across all CTAS levels.
- For ED admissions, the 90<sup>th</sup> percentile time to disposition increased from eight hours in fiscal year 2013/14 to nine hours in 2017/18, while North East LHIN sites ranged from six to 16 hours in fiscal year 2017/18.
- For admitted ED visits, the 90<sup>th</sup> percentile time to inpatient bed and ED length of stay both increased from fiscal year 2013/14 to 2017/18; the time to inpatient bed from 25 to 26 hours, with North East LHIN sites ranging from 0 to 47 hours in fiscal year 2017/18, and ED length of stay from 30 to 32 hours, with North East LHIN sites ranging from 8 to 50 hours in fiscal year 2017/18. The percentage within target of eight hours for ED admissions decreased from fiscal year 2013/14 (55%) to 2017/18 (50%), with North East LHIN sites ranging from 38% to 89% in fiscal year 2017/18.

## Emergency department visits, North East LHIN

Measure	Fiscal Year					Range across sites, FY 17/18
	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	
<b>All emergency department visits</b>						
ED Volumes (All)	300,731	311,798	314,850	310,162	314,113	12,116 - 75,387
Ambulance Offload Time - 90th Percentile (mins)	18	18	18	17	19	4 - 28
Time to PIA - 90th percentile	3	3	3	3	3	2 - 4
% with Time to PIA <= 2 Hours	76%	78%	79%	79%	78%	62% - 88%
Consult Request to Arrival - 90th Percentile	1	1	1	1	1	0 - 4
% of Consults with Consult Request to Arrival <= 2 Hrs	95%	94%	93%	95%	95%	76% - 100%
Time to Disposition (All) - 90th Percentile	6	6	6	6	6	4- 8
ED LOS - 90th Percentile	7	6	6	6	7	4 - 9
<b>Non-admitted low acuity ED visits</b>						
ED Volumes - Non-Admitted Low Acuity	125,860	129,743	128,589	121,059	117,488	9,105 - 19,132
% Within Target of 4 Hrs - Non-Admitted Low Acuity	90%	90%	91%	90%	89%	76% - 96%
Time to Disposition for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	4	3 - 6
ED LOS for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	4	3 - 6
<b>Non-admitted high acuity ED visits</b>						
ED Volumes - Non-Admitted High Acuity	141,907	149,709	154,335	157,444	165,307	1,896 - 44,513
% Within Target of 8 Hrs - Non-Admitted High Acuity	97%	97%	97%	97%	97%	89% - 99%
Time to Disposition for Non-Admitted High Acuity - 90th Percentile	6	6	6	6	6	4 - 9
ED LOS for Non-Admitted High Acuity - 90th Percentile	6	6	6	6	6	4 - 9
<b>Admitted ED visits</b>						
ED Volumes - Admitted	32,743	32,129	31,771	31,544	31,243	378 - 11,741
Admission Rate - CTAS 1	63%	65%	64%	61%	63%	12% - 73%
Admission Rate - CTAS 2	31%	29%	28%	27%	27%	14% - 38%
Admission Rate - CTAS 3	11%	10%	10%	10%	10%	6% - 16%
Admission Rate - CTAS 4	2%	2%	2%	2%	2%	1% - 4%
Admission Rate - CTAS 5	1%	1%	1%	1%	1%	0% - 4%
Time to Disposition for Admitted - 90th Percentile	8	8	9	9	9	6 - 16
ED LOS for Admitted - 90th Percentile	30	32	31	31	32	8 - 50
% Within Target of 8 Hrs - Admitted	55%	55%	53%	53%	50%	38% - 89%
Time to Inpatient Bed - 90th Percentile	25	29	26	26	26	0 - 47

## Acute Care

### Acute Care Utilization by Residents of the North East LHIN

#### Acute Separations

- In 2016/17, there were 62,223 acute separations (discharges), 331,231 acute days, and 438,586 total days (including acute and alternate level of care days) for North East LHIN residents.
- The acute separation rate for North East LHIN residents was 111 separations per 1,000 residents in 2016/17, 2nd highest among LHINs.
  - Rates were the lowest for residents of **Sudbury-Manitoulin-Parry Sound** sub-region and highest for residents of **James and Hudson Bay Coasts**. From 2013/14 to 2016/17, the overall acute separation rate for North East LHIN residents declined by 2.4%<sup>6</sup>.
  - **James and Hudson Bay Coasts**, **Cochrane**, and **Nipissing-Temiskaming** sub-regions were ranked among the highest 8 Ontario sub-regions for the rate of acute separations per 1,000 residents. – with rates much higher than Ontario.
  - **James and Hudson Bay Coasts** had the **lowest** volume of separations by sub-region of patient (1,144).

#### Acute Days

- The rate of acute days for North East LHIN residents was 589 acute days per 1,000 residents in 2016/17, 2nd highest among LHINs.
  - Rates were the lowest for residents of the **Sudbury-Manitoulin-Parry Sound** sub-region (522) and highest for **James and Hudson Bay Coasts** (1,146) in 2016/17.
  - **James and Hudson Bay Coasts**, **Cochrane**, and **Nipissing-Temiskaming** sub-regions were ranked among the highest 8 Ontario sub-regions for the rate of acute days per 1,000 residents – with rates much higher than Ontario.

#### Mean Length of Stay

- The mean total length of stay (including acute days and days waiting for an alternate level of care) for North East LHIN residents was 7.0 days, 2nd highest among LHINs, while the mean acute length of stay was 5.3 days in 2016/17.
  - **James and Hudson Bay Coasts** sub-region was ranked highest among Ontario sub-regions for both total and acute lengths of stay.

#### HIG Weight

- The Ontario HBAM Inpatient Grouper (HIG) (similar to CMG+) aggregates acute care separations with similar resource use and clinical characteristics based on most responsible diagnosis and/or principal intervention. The HIG weight is a relative cost value that reflects the resources consumed during each acute care stay. The mean HIG weight for North East LHIN residents increased from 1.51 2014/15 to 1.57 in 2016/17 – a 4.0% change – and above the provincial value (1.55).
- The top 3 HIGs accounting for the highest proportion of acute care days for North East LHIN residents in 2016/17 were: 196-heart failure without coronary angiogram, 139c-chronic obstructive pulmonary disease with lower respiratory infection, and 810-palliative care.

---

<sup>6</sup> North East LHIN sub-regions may have very small population sizes - interpret sub-region results with caution.

## Acute Care Hospital Utilization (Excluding ALC) LHIN of Patient, North East LHIN, 2016/17

	North East LHIN Residents	Ontario Residents*	Rank among LHINs	Range across North East sub- regions**
<b>Acute Care Measures</b>				
Total Population	562,346	13,982,984		7,602 – 229,164
Acute Separations	62,223	1,028,979		1,144– 23,425
Acute Separation Rate per 1,000 Population	111	74	2 <sup>nd</sup> Highest	102 – 151***
Acute Days	331,231	5,455,693		8,713– 119,718
Acute Days Rate per 1,000 Population	589	390	2 <sup>nd</sup> Highest	522 – 1,146***
Total Days	438,536	6,477,528		10,555– 167,080
Total Days Rate per 1,000 Population	780	463	2 <sup>nd</sup> Highest	729 – 1,389***
Mean Acute LOS	5.3	5.3		5.1 – 7.6
Mean Total LOS	7.0	6.3	2 <sup>nd</sup> Highest	6.6 – 9.2
Mean HIG Weight	1.57	1.55	4 <sup>th</sup> Highest	—
<b>Leading HIGs (Acute Care Days)†</b>				
(196) Heart Failure w/o Coronary Angiogram	9,238	175,995		101 – 2,953
(139c) Chronic Obstructive Pulmonary Disease with Lower Respiratory Infection	7,310	81,926		53 – 2,799
(810) Palliative Care	7,000	110,197		75 – 2,940

\* Ontario residents exclude Out-of-province

\*\* Excludes values for patients in “unassigned sub-region” from this LHIN. LHIN totals include patients in unassigned sub-region.

\*\*\* Interpret with caution, some sub-regions may have a very small population size

† Leading HIGs include Out-of-province for Ontario Values

### Acute Care Utilization for North East LHIN Facilities

- There were 56,908 acute separations, 298,967 acute days, and 405,736 total days at North East LHIN hospitals in 2016/17.

### Separations

- Separations decreased by 3.8% between 2013/14 and 2016/17. During this same period, for Ontario hospitals overall, separations increased by 3.8%.

### Acute Days

- Acute days decreased by 5.6% between 2013/14 and 2016/17. Acute days increased by 2.2%, for all Ontario hospitals overall, during this same period.
- Mean acute length of stay for 2016/17 at hospitals in the North East LHIN was 5.3 days. This is the same as the provincial result.



### Total Days

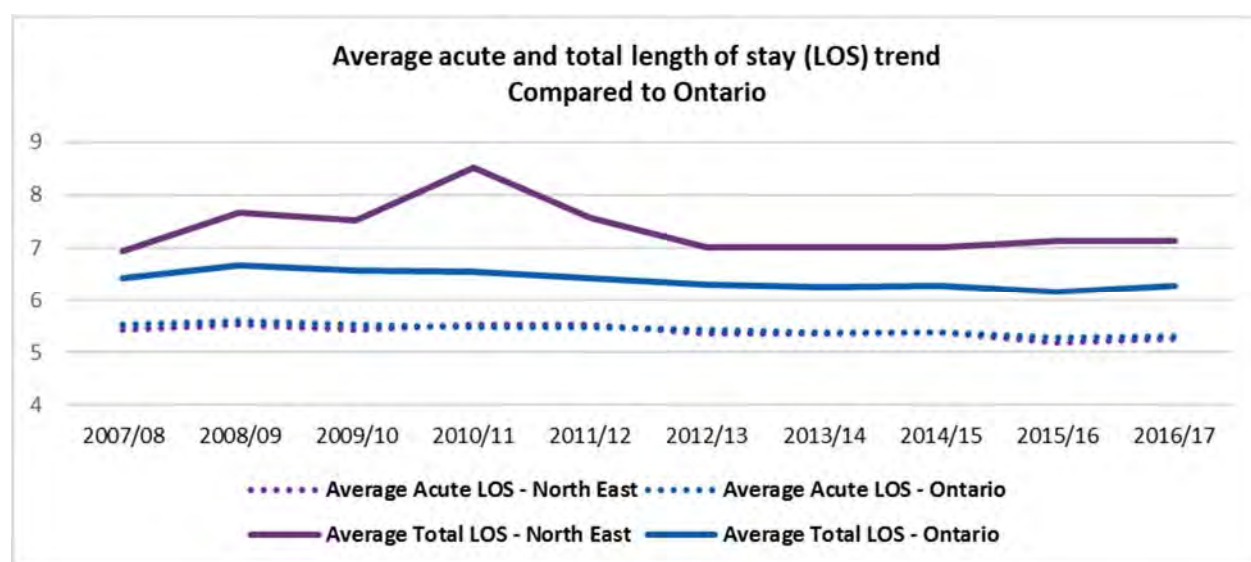
- Total days decreased by 2.2% between 2013/14 and 2016/17. Overall Ontario hospitals had an increase of 4.2% of total days during this period.
- Mean total length of stay for this LHIN was 7.1 days. This is higher than mean total length of stay for Ontario, which was 6.3 days and 2nd highest of all LHINs.

### HBAM Group (HIG) Weight

- Mean HIG weight for North East LHIN hospitals in 2016/17 of 1.50 was lower than the provincial value of 1.55.

### Acute care hospital utilization, North East LHIN, 2016/17

Measure	North East LHIN	Ontario hospitals	Comments	LHIN % change 2013/14 - 2016/17	Range within LHINs
Acute separations	56,908	1,041,308		-3.8%	26,295 - 159,315
Total days	405,736	6,542,800		-2.2%	193,259 - 1,050,391
Mean total LOS	7.1	6.3	2 <sup>nd</sup> highest		5.0 - 7.3
Acute days	298,967	5,518,912		-5.6%	142,875 - 917,167
Mean acute LOS	5.3	5.3			4.5 - 5.8
Mean HIG weight	1.50	1.55			1.23 - 1.94



## Acute Care Inflow/Outflow

### Inflow

- 2.5% of hospital separations from North East LHIN hospitals were by non- North East LHIN residents.
- This is the 3<sup>rd</sup> lowest proportion of inflow among all LHINs.

### Outflow

- 10.8% of separations for North East LHIN residents were from hospitals outside North East LHIN.

### Inflow - Outflow, North East LHIN, 2016/17

Measure	North East LHIN	Ontario Hospitals	Comments	Range across NE Sub-regions
Acute separations, LHIN of hospital	56,908	1,041,322		912 – 21,667
Acute separations, LHIN of patient	62,223	1,041,322		1,144 – 23,425
% inflow	2.5%			NA
% outflow	10.8%			7.5% - 20.3%

## Post-Acute Care

### Inpatient Rehabilitation Utilization

#### Rehabilitation Admissions

- The number of total rehabilitation admissions at the LHIN hospitals, including both general admissions and special admissions, was 983 in FY 16/17, an increase of 4.6% from FY 13/14.
  - The number of general rehabilitation admissions was 743 in FY 16/17, an increase of 6.9% from FY 13/14.
  - The number of special rehabilitation admissions was 240 in FY 16/17, a decrease of 2.0% from FY 13/14.
- The number of total rehabilitation admissions of the LHIN residents, was 1,079 in FY 16/17, an increase of 0.7% from FY 13/14.

#### Active Cases and Discharges

- In FY 16/17, the number of active cases was 1,237 while the number of discharges was 985.

#### Inpatient Days

- The number of total inpatient days was 31,231 in FY 16/17.
- The mean length of stay at the LHIN hospitals was 31.7 days.
- By sub-region of patient residence:
  - Algoma residents had the longest length of stay at 33.8 days.
  - James and Hudson Bay Coasts residents had the shortest length of stay at 28.7 days.

#### Admission Rate

- The number of admissions per 100,000 adults (age 18+) was 233.7 in FY 16/17, an increase of 1.1% from FY 13/14.
  - Age group 18-44 years had the lowest admission rate, 28.3 per 100,000 population.
  - Age group 80+ years had the highest admission rate, 1,414.9 per 100,000 population.
- By sub-region of patient residence:
  - Algoma residents had the highest admission rate at 358.1.
  - James and Hudson Bay Coasts residents had the lowest admission rate at 123.2.

#### Active Case Rate

- The number of active cases per 1,000 population age 18+ was 309.3.

#### Discharge Rate

- The number of discharges per 1,000 population age 18+ was 235.7.

#### Leading Rehabilitation Group

- The 6 leading rehabilitation groups that contributed to the total admissions in FY 16/17 were:
  - Stroke accounted for 314 admissions or 29.1% of the total admissions.
  - Other disabilities accounted for 189 admissions or 17.5% of the total admissions.
  - Fracture of lower extremity accounted for 144 admissions or 13.3 % of the total admissions.
  - Amputation accounted for 99 admissions or 9.2% of the total admissions.
  - Other orthopaedic accounted for 43 admissions or 4.0% of the total admissions.
  - Non-traumatic spinal cord injury accounted for 43 admissions or 4.0% of the total admissions.

### Outflow

- Hospitals outside the LHIN accounted for 11.9% of the total rehabilitation admissions of the LHIN residents
- By sub-region of patient residence:
  - Cochrane residents had the highest rate of admission to hospitals outside the LHIN at 18.2%.
  - Algoma residents had the lowest rate of admission to hospitals outside the LHIN at 6.6%.

### Inflow

- 3.3% of the rehabilitation admissions at the hospitals in the LHIN were residents from outside North East.

Rehab Admissions, Active Cases, Discharges and Days*	LHIN	Ontario	Ranking Among LHINs**	% Change 2013/14-2016/17	Range across sub-region
<b>LHIN of hospital</b>					
General admissions	743	28,691		6.9%	
Special admissions	240	4,444		-2.0%	
Total admissions	983	33,135		4.6%	
% Inflow inpatient rehab admissions	3.3%				
Active Cases	1,237	43,329			
Discharges	985	33,133			
Total Days (discharged cases only)	31,231	839,228			
Mean Length of Stay (discharged cases only)	31.7	25.3	2 <sup>nd</sup> highest		
<b>LHIN of patient</b>					
Total population age 18+	461,617	11,287,810		-0.7%	
Total admissions	1,079	33,016		0.7%	6-335
Admissions/100,000 population age 18+	233.7	292.5	4 <sup>th</sup> lowest	1.1%	123.2-358.1
Admissions/100,000 population age 18-44 years	28.3	30.4			0.0-34.2
Admissions/100,000 population age 45-64 years	142.0	150.9			113.3-180.2
Admissions/100,000 population age 65-79 years	439.3	689.3	Lowest		320.1-566.2
Admissions/100,000 population age 80+ years	1,414.9	2,311.8	2 <sup>nd</sup> lowest		799.3-2,333.6
% Outflow inpatient rehabilitation admissions	11.9%				6.6%-18.2%
Active cases per 1,000 population age 18+	309.3	382.3			184.8-502.8
Discharges per 1,000 population age 18+	235.7	292.5	4 <sup>th</sup> lowest		123.2-352.2
Mean Length of Stay (discharged cases only)	31.9	25.3	2 <sup>nd</sup> highest		28.7-33.8

Measure	Nipissing-Temiskaming	Sudbury-Manitoulin-Parry Sound	Algoma	Cochrane	James and Hudson Bay Coasts
Rehab Admissions	335	326	302	110	6
Rehab Admission Rate per 100,000 Population	280.5	172.5	358.1	171.7	123.2
Rehab Active Cases	415	419	424	161	9
Rehab Active Case Rate per 100,000 Population	347.5	221.8	502.8	251.4	184.8
Rehab Discharges	343	328	297	114	6
Rehab Discharge Rate per 100,000 Population	287.2	173.6	352.2	178.0	123.2
Total Inpatient Days (discharged cases only)	10,766	10,098	10,036	3,596	172
Mean LOS (discharged cases only)	31.4	30.8	33.8	31.5	28.7
<b>Age specific admission rates per 100,000 population</b>					
18-44 years	22.5	34.2	28.9	23.9	0.0
45-64 years	157.8	113.3	180.2	145.3	-
65-79 years	520.5	368.8	566.2	320.1	-
80+ years	1,760.6	799.3	2,333.6	968.9	-

Rehab Admissions, by Leading Rehabilitation Groups*	LHIN	% of Total Rehab Admission
<b>LHIN of Patient</b>		
01-Stroke	314	29.1%
18-Other disabilities	189	17.5%
10-Fracture of lower extremity	144	13.3%
07-Amputation	99	9.2%
12-Other orthopaedic	43	4.0%
06-Non-traumatic spinal cord injury	43	4.0%
11-Replacement of lower extremity		
03-Non-traumatic brain injury		
13-Cardiac		
02-Traumatic brain injury		
16-Major multiple trauma		

\* FY 16/17 data unless noted otherwise.

\*\* Top or bottom 4 ranking in the province, compared to other LHINs.

## Complex Continuing Care Utilization

### Complex Continuing Care

- In 2016/17, there were 1,257 CCC active cases treated in North East LHIN hospitals and residents from outside the LHIN accounted for 1.1% of these active cases. In 2016/17, there were 930 admissions and 907 discharges from North East LHIN hospital CCC units. North East LHIN hospitals had a mean LOS of 104.8 days - ranking 12th across LHINs.
- There were increases in the number of active cases (6.5%), admissions (11.1%), discharges (7.1%) and total days (8.8%) for North East LHIN hospital CCC units between 2013/14 and 2016/17.
- During the period, the mean length of stay in CCC beds increased from 103.1 days to 104.8 days.
- In 2016/17, there were 1,281 CCC active cases for North East LHIN residents, and 3.0% of these cases were treated in hospitals outside the LHIN.
- The active case rate for North East LHIN residents was higher than the provincial value.

### Utilization of Complex Continuing Care, North East LHIN and Ontario, 2016/17

Measure	North East LHIN		Ontario	
	LHIN Values	% Change 2013/14-2016/17	Provincial Value	% Change 2013/14-2016/17
<b>LHIN of Hospital</b>				
Active Cases	1,257	6.5%	29,466	-0.1%
% Inflow	1.1%			
Admissions	930	11.1%	24,108	0.5%
Discharges	907	7.1%	23,995	-0.2%
Total Days	95,061	8.8%	1,855,227	-2.0%
Mean LOS	104.8		77.3	
<b>LHIN of Patient</b>				
Active Cases	1,281	6.3%	29,366	0.3%
Active cases/100,000 population	227.8	7.2%	210.0	-2.9%
% Outflow	3.0%			
Admission	951	10.8%	24,022	0.8%
Admissions/100,000 population	169.1		171.8	
Discharges	923	6.5%	23,908	0.1%
Discharges/100,000 population	164.1		171.0	
Total Days	95,458	4.8%	1,850,599	-1.1%
Mean LOS	103.4		77.4	

## Alternate Level of Care

### LHIN overview<sup>7</sup>

North East LHIN						
Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Rank
Acute ALC Days (closed cases)	98,042	95,773	113,051	106,769	NV	12
% ALC Days (Acute Inpatient closed cases)	23.6%	23.2%	27.6%	26.3%	NV	14
Volume of Closed Cases	3,376	3,146	3,093	2,983	2,889	5
Volume of Closed Cases - Complex Continuing Care	335	310	406	446	463	
Volume of Closed Cases - Home with CCAC Services	876	687	716	605	498	
Volume of Closed Cases - Long Term Care	521	517	643	656	694	
90 <sup>th</sup> Percentile Wait of Closed Cases (Days)	57	51	70	69	71	11
90 <sup>th</sup> Percentile Wait of Closed Cases - Complex Continuing Care	34	30	34	35	30	
90 <sup>th</sup> Percentile Wait of Closed Cases - Home with CCAC Services	22	22	28	27	29	
90 <sup>th</sup> Percentile Wait of Closed Cases - Long Term Care	331	236	271	188	198	
Volume of Open Cases on the last day of the year	241	302	253	302	302	9
Volume of Open Cases - Complex Continuing Care	17	21	26	39	29	
Volume of Open Cases - Long Term Care	137	173	140	178	201	
Volume of Open Cases - Supervised or Assisted Living	23	27	15	25	20	
90 <sup>th</sup> Percentile Wait of Open Cases	384	441	307	310	439	11
90 <sup>th</sup> Percentile Wait of Open Cases - Complex Continuing Care	124	56	93	120	30	
90 <sup>th</sup> Percentile Wait of Open Cases - Long Term Care	434	506	324	372	444	
90 <sup>th</sup> Percentile Wait of Open Cases - Supervised or Assisted Living	1,645	1,982	2,348	1,533	1,292	
Throughput Ratio (discharged case/newly added cases)	1.01	0.98	1.02	0.99	0.97	3
% of Cases Designated ALC Within 1 Day	9.7%	7.7%	7.4%	7.2%	8.1%	10
% of Cases Designated ALC Within 2 Days	15.1%	13.0%	12.5%	12.1%	12.4%	9
% of Cases Designated ALC Within 3 Days	22.2%	19.4%	19.1%	18.5%	18.7%	9
ALC Rate - All Inpatient Services	21.3%	21.1%	20.5%	22.5%	25.0%	13
ALC Rate - Acute Inpatient Services	22.2%	22.7%	20.1%	22.4%	24.4%	13
ALC Rate - Post-Acute Inpatient Services	19.8%	18.2%	21.2%	22.7%	26.0%	13
ALC Rate - CCC Inpatient Services	40.0%	37.6%	53.5%	51.5%	51.4%	14
ALC Rate - Rehab Inpatient Services	9.7%	12.0%	16.0%	14.8%	16.0%	13
ALC Rate - Mental Health Inpatient Services	15.3%	13.8%	11.9%	13.9%	15.7%	12

<sup>7</sup> 19 hospital facilities in the North East LHIN do not participate in WTIS reporting. Data on ALC in North East hospitals must be interpreted with caution.

## Closed ALC Cases

### Acute ALC Days

- Acute ALC Days increased by 8,727 from FY 13/14 to FY 16/17.

### % ALC Days (Acute Inpatient)

- % ALC Days increased from 23.6% in FY 13/14 to 26.3% in FY 16/17.

### Volume of Closed Cases

- The volume of closed cases for all inpatient services decreased by 14% from 3,376 in FY 13/14 to 2,889 in FY 17/18.
  - Complex Continuing Care – number of closed cases increased by 38% from 335 in FY 13/14 to 463 in FY 17/18.
  - Home with CCAC Services – number of closed cases decreased by 43% from 876 in FY 13/14 to 498 in FY 17/18.
  - Supervised or Assisted Living - number of closed cases increased by 33% from 521 in FY 13/14 to 694 in FY 17/18.

### 90th Percentile Wait of Closed Cases

- The wait time for closed cases (all inpatients services and all discharge destinations) increased by 25% from 57 days in FY 13/14 to 71 days in FY 17/18. 4<sup>th</sup> in North East at the end of FY 17/18.
  - Complex Continuing – wait time decreased by 12% from 34 days in FY 13/14 to 30 days in FY 17/18.
  - Home with CCAC Services - wait time increased by 32% from 22 days in FY 13/14 to 29 days in FY 17/18.
  - Long-term Care – wait time decreased by 40% from 331 days in FY 13/14 to 198 days in FY 17/18.

### Wait Time by Sub-Region of Patient Residence

- **Cochrane** residents had the longest wait in the LHIN at 98 days; **James and Hudson Bay Coasts** had the shortest at 0 days.
- **Cochrane** 7<sup>th</sup> highest in province

## Open ALC Cases

### Volume of Open Cases

- The number of ALC waitlist entries open across all inpatient bed types increased by 25% from 241 at the end of FY 13/14 to 302 at the end of FY 17/18.
  - Complex Continuing Care – number of open cases increased by 71% from 17 at the end of FY 13/14 to 29 at the end of FY 17/18.
  - Long-term Care – number of open cases increased by 47% from 137 at the end of FY 13/14 to 201 at the end of FY 17/18.
  - Supervised or Assisted Living - number of open cases decreased by 13% from 23 at the end of FY 13/14 to 20 at the end of FY 17/18.

### 90th Percentile Wait of Open Cases

- The wait time for open cases (all inpatients services and all discharge destinations) increased by 14% from 384 days at the end of FY 13/14 to 439 days at the end of FY 17/18. Patients awaiting discharge from North East LHIN hospitals had waited 368 days longer than patients who were discharged in 17/18, and had the 4<sup>th</sup> longest wait across the LHINs at the end of FY 17/18.



- Complex Continuing – wait time decreased by 76% from 124 days at the end of FY 13/14 to 30 days at the end of FY 17/18.
- Long-term Care – wait time increased by 2% from 434 days at the end of FY 13/14 to 444 days at the end of FY 17/18.
- Supervised or Assisted Living - wait time decreased by 21% from 1,645 days at the end of FY 13/14 to 1,292 days at the end of FY 17/18.

#### *Wait Time by Sub-Region of Patient Residence*

- **Cochrane** residents had the longest wait in the LHIN at 509 days; **James and Hudson Bay Coasts** had the shortest at 152 days
- **James and Hudson Bay Coasts** tied **lowest** in province

#### **ALC Wait Time (Days) by Sub-Region of Patient Residence**

North East LHIN					
Closed & Open Cases - All Discharge Destinations by Sub-Region	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
<i>90<sup>th</sup> Percentile Wait of Closed Cases</i>					
1301 NIPISSING-TEMISKAMING	129	99	108	102	87
1302 SUDBURY-MANITOULIN-PARRY SOUND	41	40	47	57	48
1303 ALGOMA	35	56	92	66	75
1304 COCHRANE	162	56	64	69	98
1305 JAMES AND HUDSON BAY COASTS	0	0	0	0	0
<i>90<sup>th</sup> Percentile Wait of Open Cases</i>					
1301 NIPISSING-TEMISKAMING	928	558	484	301	492
1302 SUDBURY-MANITOULIN-PARRY SOUND	228	203	209	287	366
1303 ALGOMA	207	496	285	569	426
1304 COCHRANE	384	230	123	235	509
1305 JAMES AND HUDSON BAY COASTS	0	0	0	0	0

## Hospital Processes and Capacity

### ALC Throughput Ratio

- In the North East LHIN, the throughput ratio decreased from 1.01 in FY 13/14 to 0.97 in FY 17/18.

### Percentage of Patients Designated ALC within 1, 2 & 3 Days of Admission

- The percentage of patients that have been designated as requiring an alternate level of care within one, two and three days of admission to hospital decreased over the last five years in the North East LHIN from FY 13/14 to FY 17/18. All 3 measures are ranked 5<sup>th</sup>, 6<sup>th</sup>, 6<sup>th</sup> respectively in the province.

### ALC Rate (All Inpatient Services)

- The annual ALC rate for all inpatient beds increased from 21.3% in FY 13/14 to 25.0% in FY 17/18.
- In FY 17/18, the North East LHIN was above the provincial rate of 15.4%.

#### *Acute I/P Services*

- North East LHIN increased over the past 5 fiscal years (22.2% FY 13/14; 24.4% FY 17/18) and is now 8.2% above the provincial value.

#### *Post-Acute I/P Services*

- North East LHIN increased over the past 5 fiscal years (19.8% FY 13/14; 26.0% FY 17/18). The North East LHIN is above the provincial Post-acute ALC rate (2<sup>nd</sup> highest in ON).
  - CCC Inpatient Services – 1<sup>st</sup> across LHINs for FY 17/18. Rate increased from 40.0% in FY 13/14 to 51.4% in FY 17/18.
  - Mental Health Inpatient Services – 3<sup>rd</sup> across LHINs for FY 17/18. Rate increased from 15.3% in FY 13/14 to 15.7% in FY 17/18.
  - Rehab Inpatient Services – 2<sup>nd</sup> across LHINs for FY 17/18. Rate increased from 9.7% in FY 13/14 to 16.0% in FY 17/18.

### LHIN/Facility/Site – Annual ALC Rate

Province/LHIN/Facility/Site			Annual ALC Rate					% Change FY 13/14 to FY 17/18
			FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	
<b>Provincial</b>			<b>13.8%</b>	<b>13.7%</b>	<b>13.9%</b>	<b>14.8%</b>	<b>15.4%</b>	
<b>LHIN</b>	<b>13</b>	<b>North East</b>	21.3%	21.1%	20.5%	22.5%	25.0%	3.6%
<b>Facility</b>	888	TEMISKAMING HOSPITAL	43.3%	16.9%	25.5%	16.7%	23.8%	(-19.5%)
<b>Facility</b>	906	NORTH BAY REGIONAL HEALTH CENTRE (DISCONTINUED)	15.9%	14.9%	17.2%	21.0%	NR	
<b>Site</b>	4199	NORTH BAY REGIONAL HEALTH SITE (DISCONTINUED)	15.6%	14.3%	15.9%	19.6%	NR	
<b>Site</b>	4736	NORTH BAY REGIONAL HEALTH CENTRE- KIRKWOOD (DISCONTINUED)	18.9%	21.4%	31.3%	35.5%	NR	
<b>Facility</b>	974	NORTH BAY REGIONAL HEALTH CENTRE	NR	NR	NR	24.2%	30.1%	6.0%
<b>Site</b>	4734	NORTH BAY REGIONAL HEALTH SITE	NR	NR	NR	23.0%	30.3%	7.4%
<b>Site</b>	4736	NORTH BAY REGIONAL HEALTH CENTRE- KIRKWOOD	NR	NR	NR	37.5%	27.6%	(-9.9%)
<b>Facility</b>	907	TIMMINS & DISTRICT GENERAL HOSPITAL	38.7%	21.5%	25.3%	22.7%	33.4%	(-5.3%)
<b>Facility</b>	931	WEST PARRY SOUND HEALTH CENTRE	37.5%	34.4%	34.4%	40.6%	40.3%	2.8%
<b>Facility</b>	959	HOPITAL REGIONAL DE SUDBURY	15.1%	16.4%	17.0%	21.2%	19.4%	4.3%
<b>Facility</b>	965	SAULT AREA HOSPITAL	22.9%	34.9%	25.4%	24.0%	20.5%	(-2.4%)
<b>Site</b>	2075	SAULT AREA -THESSALON UNIT	N/A	N/A	N/A	N/A	N/A	
<b>Site</b>	3972	SAULT AREA -SAULT STE MARIE	22.9%	34.9%	25.4%	24.0%	20.5%	(-2.4%)

*\*If all 5 years are not available, then available years used to calculate % change*

- In FY 17/18, West Parry Sound Health Centre had the highest ALC Rate across the North East LHIN at the facility level, with North Bay Regional Health Site having the highest site level rate.
- North Bay Regional Health Site had the greatest increase in ALC Rate since FY 13/14 (+7.4%).
- Temiskaming Hospital had the greatest decrease in ALC Rate since FY 13/14 (-19.5%).

## Long-Term Care

### Long-Term Care Bed Supply

- 48 LTC homes are licensed and approved to operate in North East LHIN.
- As of February 2018, there were a total of 5,085 Long-Term Care beds in operation in North East LHIN.
  - With the exception of 187 beds designated as Short-stay, Respite or Convalescent care beds, almost all of the LTC beds are designated Long-Stay Beds or Interim beds.

### Long-Term Care Waitlist & Placements

- Of the 1,462 patients placed in North East LHIN Long-Term Care Homes in FY 2017/18, approximately 63% were from the community while only 28% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- Of the 1,493 residents of North East LHIN placed in Ontario Long-Term Care Homes in FY 2017/18, approximately 63% were from the community while only 29% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- The median time to placement in a North East LHIN long-term care home, as of March 2018, was 116 days.
  - Half of community patients waited less than 129 days for a placement in a North East LHIN LTC home while half of hospital patients waited less than 71 days for placement in a North East LHIN LTC Home.
- The median time to placement for a North East LHIN resident to be placed in a long-term care home, as of March 2018, was 114 days.
  - Half of community patients from North East LHIN waited less than 130 days for a placement in an Ontario LTC home while half of hospital patients waited less than 71 days for placement.
- As of March 2018, there were 1,958 patients on the waitlist waiting for placement in a Long-Term Care home in North East LHIN (not including patients awaiting transfer from one LTC home to another).
- As of March 2018, there were 2,002 residents of North East LHIN on the waitlist waiting for placement in an Ontario Long-Term Care home (not including patients awaiting transfer from one LTC home to another).

### Long-Stay Demand

- As of March 2018, there were 4,827 long-stay residents occupying LTC Homes within North East LHIN.
- When adjusted for the size of the older population, North East LHIN has approximately 98 Long-Stay beds per 1,000 people aged 75+.
- The gap between the demand and supply of Long-Term Care Homes in North East LHIN reflects a shortage of approximately 1,887 Long-Stay beds.
  - The largest gap is in the **Sudbury-Manitoulin-Parry Sound** sub-region (696 beds) and the smallest in **Cochrane** (315 beds). Note the sub-region of **James and Hudson Bay Coasts** has no demand or supply for long-stay beds.

### Selected Characteristics of Long-Term Care Home Residents

- In North East LHIN, 81% of Residents were over the age of 75 with 51% being over the age of 85.
- In 2016/17, the mean age of residents of LTC Homes in North East LHIN was 83.
- The mean length of stay for residents of LTC Homes in North East LHIN was 1,015 days (about 2.8 years) with half of residents remaining in LTC homes for less than 670 days.
- Nearly 73% of residents need extensive help with daily activities such as getting out of bed, eating, or toileting; 21% are highly or entirely dependent on staff.
- 79% have some form of cognitive impairment; 23% are severely impaired.
- 45% exhibit some level of aggressive behaviour related to their cognitive impairment or mental health condition with 6% exhibiting very severe aggressive behavior.

- 65% of active LTC Residents in North East LHIN LTC Homes have been identified as having some form of dementia.

### Long-term care home supply, waitlists and placements, and resident characteristics, by LHIN sub-region

	North East		1301		1302		1303		1304		1305	
			Nipissing-Temiskaming		Sudbury-Manitoulin-Parry Sound		Algoma		Cochrane		James and Hudson Bay Coasts	
Long-term care bed supply in the sub-region (February 2018)	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-term care homes	48		13		15		10		10		0	
Long-stay beds	4,898	98.4	1,286	96.5	1,954	97.9	937	90.2	721	121.3	0	0
Short-stay, respite & convalescent care beds	187	3.8	68	5.1	45	2.3	68	6.5	6	1.0	0	0
Total beds in operation	5,085	102.1	1,354	101.6	1,999	100.1	1,005	96.8	727	122.3	0	0

*†The denominator for the rate calculation refers to the number of sub-region residents age 75+; however the LTC homes/beds may serve individuals from other sub-regions. Therefore, rates should be interpreted with caution.*

	North East		1301		1302		1303		1304		1305	
			Nipissing-Temiskaming		Sudbury-Manitoulin-Parry Sound		Algoma		Cochrane		James and Hudson Bay Coasts	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>By sub-region of long-term care home (patients awaiting placement in a home within the sub-region)</b>												
Long-stay waitlist without transfer patients*	1,958	39.3	401	30.1	717	35.9	517	49.8	323	54.3	0	0
<b>Placements**</b>												
From community	915	62.6%	210	60.3%	399	65.5%	208	69.3%	98	47.8%	0	0.0%
From hospital	415	28.4%	102	29.3%	168	27.6%	64	21.3%	81	39.5%	0	0.0%
Total	1,462		348		609		300		205		0	
<b>Median time to placement (days)</b>												

	North East		1301		1302		1303		1304		1305	
			Nipissing-Temiskaming		Sudbury-Manitoulin-Parry Sound		Algoma		Cochrane		James and Hudson Bay Coasts	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
From community	129		82.5		124.0		156.5		230.5		0	
From hospital	71		39.0		54.0		115.5		176.0		0	
Total	116		71.5		106.0		146.0		222.0		0	
<b>By sub-region of patient (patients who reside within the sub-region and are awaiting placement in any home)</b>												
Long-stay waitlist without transfer patients*	2,002	40.2	447	33.6	710	35.6	517	49.8	321	54.0	7	37.7
Placements**												
From community	934	62.6%	226	61.7%	401	65.0%	209	69.9%	96	47.5%	<5	22.2%
From hospital	428	28.7%	103	28.1%	174	28.2%	64	21.4%	80	39.6%	7	77.8%
Total	1,493		366		617		299		202		9	
<b>Median time to placement (days)</b>												
From community	130		87.0		125.0		158.0		230.5		1073.0	
From hospital	71		50.0		53.0		111.0		145.5		390.0	
Total	114		80.0		105.0		141.0		201.0		390.0	

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents

Placements from other locations (correctional facilities, homeless, out-of-province) are not shown but are included in the total placement values.

	North East		1301		1302		1303		1304		1305	
			Nipissing-Temiskaming		Sudbury-Manitoulin-Parry Sound		Algoma		Cochrane		James and Hudson Bay Coasts	
Long-stay demand (February / March 2018) for LTC homes in the sub-region	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-stay residents	4827.0	96.9	1,271	95.4	1,933	96.8	910	87.6	713	119.9	0	0
Long-stay waitlist without transfer patients	1,958	39.3	401	30.1	717	35.9	517	49.8	323	54.3	0	0
Total demand	6,785	136.2	1,672	125.5	2,650	132.7	1,427	137.4	1,036	174.3	0	0
Total long-stay supply	4,898	98	1,286	96.5	1,954	97.9	937	90.2	721	121.3	0	0
Difference between supply and demand	1,887	38	386	29.0	696	34.9	490	47.2	315	53.0	0	0

	North East		1301		1302		1303		1304		1305	
			Nipissing-Temiskaming		Sudbury-Manitoulin-Parry Sound		Algoma		Cochrane		James and Hudson Bay Coasts	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Demography, volume and length of stay (LOS)</b>												
Active LTC Residents*	4,246	85.3	1,116	83.8	1,672	83.7	813	78.3	645	108.5		
Number of admissions*	1,586	31.8	429	32.2	622	31.2	315	30.3	220	37.0		
<b>By age group**</b>												
Residents age <65	297	7.0%	73	6.5%	135	8.1%	37	4.6%	52	8.1%		
Residents age 65-74	509	12.0%	147	13.2%	198	11.8%	80	9.8%	84	13.0%		
Residents age 75-84	1,271	29.9%	336	30.1%	495	29.6%	243	29.9%	197	30.5%		

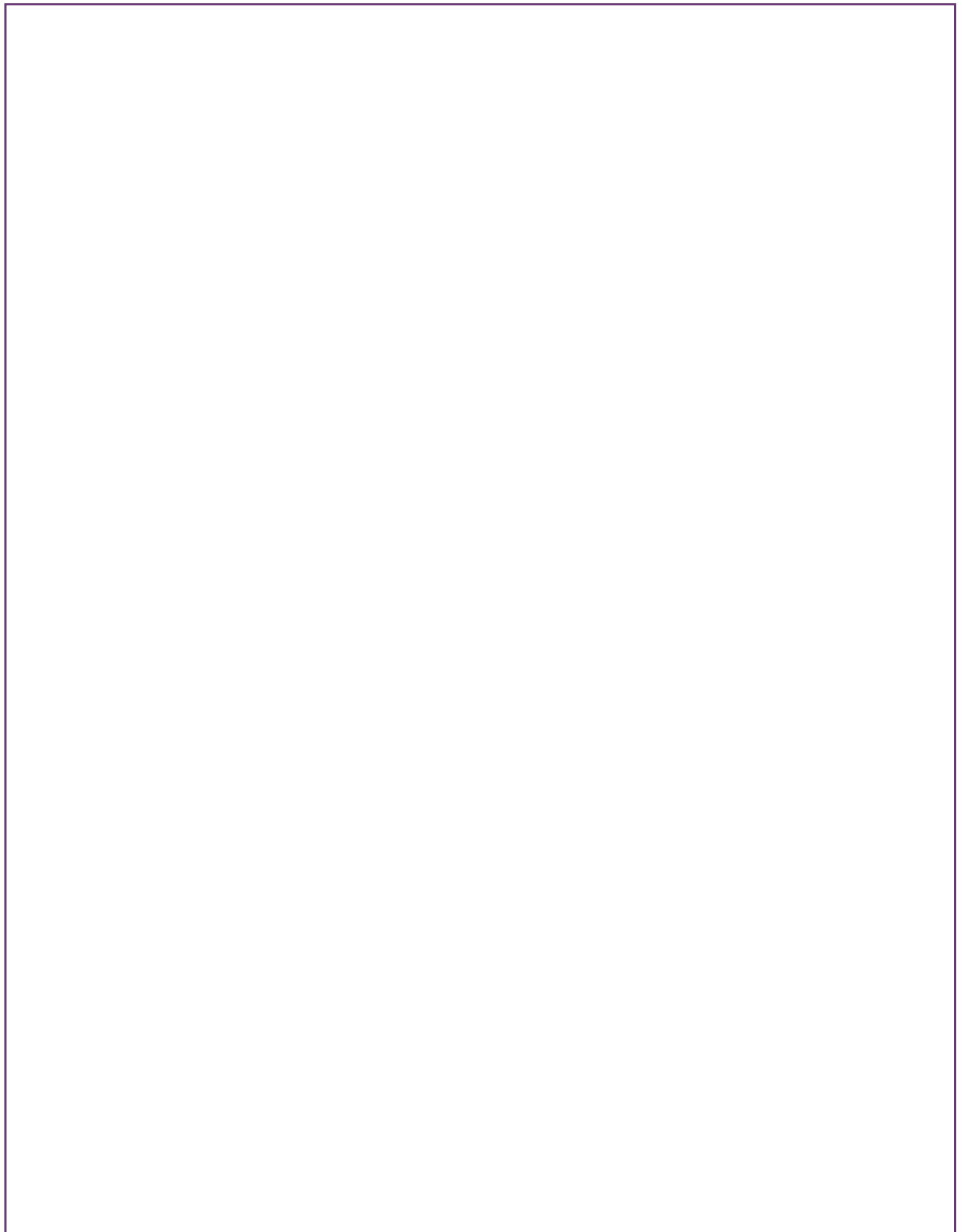


	North East		1301		1302		1303		1304		1305	
			Nipissing-Temiskaming		Sudbury-Manitoulin-Parry Sound		Algoma		Cochrane		James and Hudson Bay Coasts	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Residents age 85+	2,169	51.1%	560	50.2%	844	50.5%	453	55.7%	312	48.4%		
Mean age of residents	83		83		82		84		82			
Mean age of residents at admission	82		82		82		84		81			
<b>Length of stay</b>												
Mean LOS (days)	1,015		963		1,014		1,001		1,146			
Median LOS (days)	670		669		622		710		735			
<b>Residents by level of ADL assistance required**</b>												
None or limited assistance required	1,149	27.1%	379	34.0%	421	25.2%	181	22.3%	168	26.0%		
Extensive assistance required	2,220	52.3%	476	42.7%	936	56.0%	448	55.1%	360	55.8%		
Dependent	877	20.7%	261	23.4%	315	18.8%	184	22.6%	117	18.1%		
<b>Residents by level of aggressive behaviour**</b>												
No signs of aggressive behaviour	2,319	54.6%	606	54.3%	886	53.0%	388	47.7%	439	68.1%		
Some signs of aggressive behaviour	1,036	24.4%	266	23.8%	467	27.9%	173	21.3%	130	20.2%		
Moderate to severe aggressive behaviour	639	15.0%	172	15.4%	254	15.2%	151	18.6%	62	9.6%		
Very severe aggressive behaviour	251	5.9%	72	6.5%	65	3.9%	101	12.4%	13	2.0%		

	North East		1301		1302		1303		1304		1305	
			Nipissing-Temiskaming		Sudbury-Manitoulin-Parry Sound		Algoma		Cochrane		James and Hudson Bay Coasts	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Cognitive impairment categories **</b>												
Relatively intact	892	21.0%	207	18.5%	426	25.5%	87	10.7%	172	26.7%		
Mild impairment	2,362	55.6%	602	53.9%	880	52.6%	519	63.8%	361	56.0%		
Severe impairment	992	23.4%	307	27.5%	366	21.9%	207	25.5%	112	17.4%		
<b>RUG categories **</b>												
1 Extensive Services	148	3.5%	30	2.7%	80	4.8%	27	3.3%	11	1.7%		
2 Special Rehabilitation	258	6.1%	32	2.9%	125	7.5%	25	3.1%	76	11.8%		
3 Special Care	363	8.5%	100	9.0%	155	9.3%	57	7.0%	51	7.9%		
4 Clinically Complex	840	19.8%	262	23.5%	327	19.6%	125	15.4%	126	19.5%		
5 Impaired Cognition	768	18.1%	252	22.6%	228	13.6%	176	21.6%	112	17.4%		
6 Behavioural Problems	68	1.6%	25	2.2%	25	1.5%	13	1.6%	5	0.8%		
7 Reduced Physical Functions	1,801	42.4%	415	37.2%	732	43.8%	390	48.0%	264	40.9%		
<b>Residents with Dementia**</b>	<b>2,749</b>	<b>64.7%</b>	<b>776</b>	<b>69.5%</b>	<b>1,048</b>	<b>62.7%</b>	<b>562</b>	<b>69.1%</b>	<b>363</b>	<b>56.3%</b>		

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents





# 14. North West LHIN



## Contents

<b>14. North West LHIN</b>	<b>1</b>
<b>Highlights</b>	<b>3</b>
North West LHIN	3
Residents of North West LHIN Sub-Regions	6
<b>Population Characteristics</b>	<b>15</b>
Population Estimates	15
2016 Census Profile	16
Births and Mortality	23
General Health, Risk Factors, and Prevention	29
Chronic Conditions	31
<b>Human Resources</b>	<b>43</b>
<b>Primary Care</b>	<b>46</b>
Primary Care Enrolment	46
Selected Measures from the Health Care Experience Survey	46
<b>Community Care</b>	<b>48</b>
<b>Mental Health Services</b>	<b>49</b>
Wait Time for Community Services	49
Mental Health and Substance Abuse Emergency Department Visits	49
Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility	50
<b>Surgery &amp; Diagnostic Imaging</b>	<b>52</b>
Day Surgery and Cardiac Catheterization Utilization	52
Surgical & Diagnostic Imaging Wait Times	53
<b>Oncology and Dialysis</b>	<b>62</b>
<b>Home Care</b>	<b>66</b>
<b>Palliative Care</b>	<b>69</b>
<b>Emergency Department</b>	<b>72</b>
Emergency Department Utilization	72
Emergency Department Performance	77
<b>Acute Care</b>	<b>79</b>
Acute Care Utilization by Residents of the North West LHIN	79
Acute Care Utilization for North West LHIN Facilities	81
Acute Care Inflow/Outflow	82
<b>Post-Acute Care</b>	<b>83</b>
Inpatient Rehabilitation Utilization	83
Complex Continuing Care Utilization	86
<b>Alternate Level of Care</b>	<b>87</b>
Closed ALC Cases	88
Open ALC Cases	88
Hospital Processes and Capacity	90
<b>Long-Term Care: Supply, demand, and time to placement</b>	<b>92</b>

## Highlights

Comprehensive information about population demographics, health status, health outcomes, chronic conditions, human resources, primary care, health service utilization, and long-term care in the North West LHIN can be found under the content headings of in the remainder of this document, beginning with the socio-demographic profile. This Highlights introduction is intended to provide a guide to areas in which either the North West LHIN or one of its sub-regions is significantly different from the province as a whole. Sub-region comparisons within this section are always to the other 75<sup>1</sup> sub-regions across the province, and LHIN comparisons are always to the other 13 LHINs.

### North West LHIN

#### Population Characteristics

- The North West LHIN had the **smallest** population of the 14 LHINs, with 51% fewer residents than the next smallest LHIN (North Simcoe Muskoka). The North West LHIN had the 2<sup>nd</sup> largest decrease in population between 2011 and 2016, and had the smallest projected growth between 2016 and 2026.
- The North West LHIN had the **lowest** population density of all 14 LHINs.
- The North West LHIN had the second lowest percentage of immigrants.
- The North West LHIN had the second lowest percentage of recent immigrants.
- The North West LHIN had the second lowest percentage of visible minorities.
- The North West LHIN had the **highest** percentage of residents reporting Aboriginal identity.
- The North West LHIN had the second lowest percentage of first generation Canadians.
- The North West LHIN had the **highest** percentage of residents with less than high school.
- The fertility rate was the **highest** in the province for both the general population and for teenagers.
- The North West LHIN had the **highest** proportion of births to women under 20 years of age, and the 2<sup>nd</sup> lowest to women 35 years or older.
- In 2016, the overall mean age of mothers giving birth and at the birth of their first infant in North West were both the **lowest** in the province.
- The multiple live birth rate in 2016 was the **lowest** rate in the province.
- In North West, both the total Caesarean section rate and the primary Caesarean section rate were the **lowest** in the province.
- The rate of repeat Caesarean sections in North West was the 2<sup>nd</sup> lowest in the province.
- The epidural rate for vaginal deliveries and for all deliveries were the **lowest** in the province.
- Among vaginal deliveries, the overall assisted delivery rate and using forceps were the **lowest** in the province.
- In North West, the proportion of hospital births attended by an obstetrician was the **lowest** in the province. The proportion attended by a family doctor or by a midwife were the **highest** in the province.
- North West hospitals had the 2<sup>nd</sup> lowest proportion of pre-term births in the province. The pre-term birth rate was the **lowest** rate in the province.
- The overall and full-term low birth weight rates in North West were both the **lowest** in the province.
- The “large for gestational age” rate was the highest rate in the province.
- **North West** had the highest volumes of CSS Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population 75+.

---

<sup>1</sup> Or however many sub-regions have reported data across the province.

- **North West** had the highest volume of CSS Community Group Participants Patient Attendances per 1,000 population 75+.
- **North West** had the highest volume of CSS Resident Days (Assisted Living, Overnight stay care) per 1,000 population 75+ .
- The acute separation rate for North West LHIN residents was **highest** among LHINs in 2016/17.
- The rate of acute days for North West LHIN residents was **highest** among LHINs in 2016/17.
- The mean total length of stay and mean acute length of stay in 2016/17 were **highest** and 2nd highest among LHINs, respectively.
- The North West LHIN had the **highest** nursing visit rate in 2017/18.
- North West LHIN had the **highest** ED visit rate in 2016/17.
- Residents of the North West LHIN received the **lowest** rate of home visits in the last 90 days of life.
- Residents of the North West LHIN had a **significantly lower** rate of unplanned ED visits in the last 30 days of life than the province as a whole. The North West LHIN had the **lowest** rate in the province.
- The North West LHIN had a **significantly higher** percentage of people who died in hospital than the provincial value.
- Residents of the North West LHIN had the **highest** hospital separation rate from acute beds in 2016/17.
- Residents of the North West LHIN had the **highest** rate of acute hospital days per 1,000 residents in 2016/17.
- Residents of the North West LHIN had the **longest** length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- North West hospitals had the **largest** percentage decrease in acute days between 2013/14 and 2016/17.
- North West hospitals had the **longest** total length of stay (acute days plus ALC days) in 2016/17.
- The North West LHIN had the 2<sup>nd</sup> lowest proportion of acute inflow (residents of other LHINs admitted to acute inpatient beds in the North West LHIN).
- The North West LHIN had the 2<sup>nd</sup> lowest proportion of acute outflow (residents of the North West LHIN admitted to acute inpatient beds in other LHINs).
- The North West LHIN had the 2<sup>nd</sup> lowest proportion of rehabilitation inflow (residents of other LHINs admitted to inpatient rehabilitation beds in the North West LHIN).
- The North West LHIN had the **longest** rehabilitation length of stay.
- Residents of the North West had the **highest** CCC active case rate in 2016/17.

### Strengths

- The “small for gestational age” rate was the **lowest** proportion in the province.
- In 2016, the small for gestational age rate was the **lowest** rate in the province.
- In FY 2016/17, Caesarean deliveries accounted for the **lowest** proportion of all hospital births in the province.
- North West LHIN hospitals had the **lowest** proportion of emergency department visits for mental health or substance abuse conditions made by patients who were homeless.
- North West LHIN hospitals had the **lowest** number of active cases, admissions and discharges for adult designated mental health beds.
- In 2017/18, emergency departments in the North West LHIN had the **shortest** ambulance offload time (tied with **South East**).

### Challenges/Opportunities

- In 2016, the stillbirth rate per 1,000 live births in North West was the **highest** in the province.



- In North West, the rate of women who self-identified as non-smokers was the **lowest** proportion in the province both at first prenatal visit and at the time of labour.
- In North West, the rate of women who reported drinking alcohol and who reported using drugs during pregnancy were the **highest** proportion in the province.
- In 2015-16, a significantly smaller percentage of North West LHIN residents said they had very good or excellent health than in Ontario overall.
- A significantly smaller proportion of North West residents reported having a regular medical doctor, compared with Ontario. This was the **lowest** rate among all of the LHINs.
- The proportion of North West residents who reported daily or occasional smoking in 2015-16 was **significantly higher** than the Ontario rate. The proportion of people exposed to second hand smoke in the home was also **significantly higher**, and almost double the Ontario rate.
- North West residents reported a **significantly higher** rate of heavy drinking than Ontario.
- The proportion of North West residents who were either overweight or obese was **significantly higher** than the Ontario rate. The obesity rate was also **significantly higher** than the Ontario rate.
- The prevalence rate for residents with one or more chronic conditions was **significantly higher** than Ontario and was the 3<sup>rd</sup> highest among the LHINs.
- Among sub-regions across all LHINs, all of North West LHIN's sub-regions ranked in the highest 8 for rate of acute separations per 1,000 residents.
- **Lowest** percentage of the population who were satisfied with health care in their community.
- 2<sup>nd</sup> lowest percentage of residents who report attachment to a primary care provider.
- **Lowest** percentage of residents who reported that they were able to see their provider the same day or next day when they were sick.
- **Highest** percentage of residents who went to the ED for something that could have been treated by a primary care provider.
- **Highest** percentage of residents with difficulty accessing after-hours care without going to ED.
- **Highest** percentage of residents who went to a walk in clinic for something that could have been treated by a primary care provider if they were available.
- North West LHIN residents had the **highest** ED visit rates for MH/SA conditions.

## Residents of North West LHIN Sub-Regions

### DISTRICT OF KENORA SUB-REGION HIGHLIGHTS

#### Population Characteristics

- District of Kenora had the 8<sup>th</sup> lowest population among sub-regions. According to the census, this sub-region had the greatest decrease in population between 2011 and 2016.
- 5<sup>th</sup> lowest population density, at 1.0 people per square kilometre.
- 6<sup>th</sup> lowest percentage of residents who report no knowledge of English or French.
- 6<sup>th</sup> lowest of residents who were first generation Canadian.
- 4<sup>th</sup> highest percentage of residents reporting Aboriginal identity.
- 5<sup>th</sup> highest fertility rate for teenagers in the province.
- 4<sup>th</sup> lowest mean age of mothers at the birth of their first infant in the province.
- 4<sup>th</sup> lowest overall mean age of women giving birth in the province.
- District of Kenora tied with Northern for the 2<sup>nd</sup> lowest multiple live birth rate in the province.
- 4<sup>th</sup> highest percentage of patients with two or more acute inpatient admissions in the last 30 days of life (tied with Oxford).
- 2<sup>nd</sup> lowest rate of palliative home visits in the last 90 days of life in 2016/17.
- Among the highest acute separation rates from acute hospital beds in 2016/17.
- Residents of District of Kenora had among the highest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- Among the highest rates of acute care days per 1,000 residents in 2016/17.
- 3<sup>rd</sup> longest rehabilitation length of stay.
- 4<sup>th</sup> lowest CCC active case rate.

#### Strengths

- 2<sup>nd</sup> lowest low birth weight rate in the province.
- 2<sup>nd</sup> lowest “small for gestational age” rate in the province.
- **Lowest** pre-term birth rate in the province.
- Among the 8 sub-regions with the lowest percentage of complex patients (4+ conditions).
- **Lowest** inpatient rehabilitation admission rate in the province.

#### Challenges/Opportunities

- 3<sup>rd</sup> highest percentage of dwellings in need of major repairs.
- 2<sup>nd</sup> highest stillbirth rate in the province.
- 5<sup>th</sup> highest “large for gestational age” rate in the province.
- **Significantly higher** rates of overweight or obesity compared to Ontario.
- Compared to Ontario, the proportion of people having a medical doctor was **significantly lower** in District of Kenora.
- The prevalence rate for the population with arthritis was **significantly higher** than Ontario.
- **Significantly higher** prevalence rate for high blood pressure than Ontario.
- **Highest** percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days.
- Among the 8 sub-regions with the highest hospitalization rates for cerebrovascular disease, diabetes, respiratory disease, and stroke.

- **District of Kenora** sub- was among the 8 sub-regions with the highest mean cost per complex patient.
- Among the highest 8 Ontario sub-regions for total length of stay.
- 3<sup>rd</sup> highest mean length of stay for inpatient rehabilitation.
- 5<sup>th</sup> highest all-cause potential years of life lost rate.
- 3<sup>rd</sup> lowest percentage of residents who were satisfied with health care in their community.
- 7<sup>th</sup> lowest percentage of residents who reported attachment to a primary care provider.
- **Lowest** percentage of residents who were able to see their provider the same day or next day when they were sick.
- 3<sup>rd</sup> highest percentage of residents who went to the ED for something that could have been treated by a primary care provider.
- **Highest** percentage of residents who found it difficult to access care after-hours without going to an emergency department.
- **District of Kenora** residents had the 7<sup>th</sup> highest ED visit rate for MH/SA conditions.

### Population Characteristics

- District of Rainy River had the 3<sup>rd</sup> lowest population among sub-regions. According to the census, this sub-region had the 7<sup>th</sup> greatest decrease in population between 2011 and 2016.
- 6<sup>th</sup> lowest population density.
- 3<sup>rd</sup> lowest percentage of residents who reported no knowledge of English or French.
- 5<sup>th</sup> lowest percentage residents who were immigrants.
- 3<sup>rd</sup> lowest percentage of residents who were recent immigrants.
- 7<sup>th</sup> lowest percentage of residents who were first generation Canadian.
- 2<sup>nd</sup> lowest percentage of residents who were visible minorities.
- 5<sup>th</sup> highest percentage of residents reporting Aboriginal identity.
- 7<sup>th</sup> highest percentage of residents with only high school completion.
- 3<sup>rd</sup> highest large for gestational age rate in the province.
- 4<sup>th</sup> highest fertility rate for teenagers in the province.
- 5<sup>th</sup> highest overall fertility rate in the province.
- 5<sup>th</sup> lowest mean age of mothers at the birth of their first infant in the province.
- 5<sup>th</sup> lowest overall mean age of women giving birth in the province.
- 7<sup>th</sup> highest crude birth rate in the province.
- 6<sup>th</sup> highest percentage of patients receiving palliative care who died in hospital in 2016/17 (tied with Northumberland County).
- 3<sup>rd</sup> lowest rate of palliative home visits in the last 90 days of life in 2016/17.
- **Lowest** percentage of patients with two or more acute inpatient admissions in the last 30 days of life.
- Among the highest acute separation rates from acute hospital beds in 2016/17.
- Residents of District of Rainy River had among the highest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- Among the highest rates of acute care days per 1,000 residents in 2016/17.
- **Longest** rehabilitation length of stay.

### Strengths

- 4<sup>th</sup> lowest percentage of residents spending 30% or more of household income on rent or payments.
- 6<sup>th</sup> lowest low birth weight rate in the province.
- District of Rainy River had the **lowest** full-term low birth weight rate in the province.

### Challenges/Opportunities

- 5<sup>th</sup> highest percentage of dwellings in need of major repairs.
- **Significantly higher** rates of overweight or obesity compared to Ontario.
- District of Rainy River sub-region was among the 8 sub-regions with the highest hospitalization rates for cardiovascular disease, cerebrovascular disease, diabetes, hypertension, respiratory disease, and stroke.
- 8<sup>th</sup> lowest percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days.
- Among the 8 highest sub-regions for mean healthcare cost per user.
- Among the 8 sub-regions with the highest mean cost per complex patient.

- **District of Rainy River** was among the 8 sub-regions with the highest percentage of high cost healthcare users and highest mean cost per high cost healthcare user.
- Among the highest 8 Ontario sub-regions for total length of stay.
- **Highest** mean length of stay for inpatient rehabilitation.
- **Lowest** percentage of residents who were satisfied with health care in their community.
- **Lowest** percentage of residents who reported attachment to a primary care provider.
- 2<sup>nd</sup> highest percentage of residents who went to the ED for something that could have been treated by a primary care provider.
- 2<sup>nd</sup> highest percentage of residents who found it difficult to access care after-hours without going to an emergency department.
- **District of Rainy River** residents had the 5<sup>th</sup> highest ED visit rate for MH/SA conditions.
- In 2017/18, residents of the **District of Rainy River** had the 5<sup>th</sup> longest wait before being discharged from hospital with an ALC designation (closed cases).
- At the end of 2017/18, residents of **District of Rainy River** had been waiting the **longest** for discharge from an ALC designation in hospital (open cases).

### Population Characteristics

- 2<sup>nd</sup> lowest population.
- 3<sup>rd</sup> lowest population density.
- 7<sup>th</sup> highest percentage both of residents who reported French as their mother tongue and of residents who meet the new inclusive definition of Francophone.
- 2<sup>nd</sup> lowest percentage of residents who reported no knowledge of English or French.
- 4<sup>th</sup> lowest percentage residents who were immigrants.
- 4<sup>th</sup> lowest percentage of residents who were first generation Canadian.
- 8<sup>th</sup> lowest percentage of residents who were visible minorities.
- District of Thunder Bay had the 3<sup>rd</sup> highest percentage of residents reporting Aboriginal identity.
- 3<sup>rd</sup> highest percentage of residents with less than high school.
- 5<sup>th</sup> lowest percentage of residents with bachelor's degree completion and beyond.
- 6<sup>th</sup> highest large for gestational age rate in the province.
- 3<sup>rd</sup> highest fertility rate for teenagers in the province.
- 3<sup>rd</sup> lowest overall mean age of women giving birth in the province.
- 3<sup>rd</sup> lowest mean age of mothers at the birth of their first infant in the province.
- 3<sup>rd</sup> highest mean all-cause premature mortality rate per 100,000.
- 2<sup>nd</sup> highest percentage of patients with two or more acute inpatient admissions in the last 30 days of life.
- 2<sup>nd</sup> highest percentage of residents who died in hospital.
- 4<sup>th</sup> highest percentage of patients who receive palliative care who died in hospital in 2016/17.
- 6<sup>th</sup> rate of palliative home visits in the last 90 days of life in 2016/17.
- Residents of District of Thunder Bay spent substantially fewer days at home in the last six months of life than Ontarians in general.
- Among the highest acute separation rates from acute hospital beds in 2016/17.
- Residents of District of Thunder Bay had among the highest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.
- Among the highest rates of acute care days per 1,000 residents in 2016/17.
- 2<sup>nd</sup> longest rehabilitation length of stay.
- 3<sup>rd</sup> highest CCC active case rate.

### Strengths

- 3<sup>rd</sup> lowest percentage of residents spending 30% or more rent or payments.
- 8<sup>th</sup> lowest low birth weight rate in the province.

### Challenges/Opportunities

- 4<sup>th</sup> highest percentage of dwellings in need of major repairs.
- 5<sup>th</sup> highest percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days.
- 3<sup>rd</sup> highest percentage of residents who were unemployed.
- Compared to Ontario, the proportion of people having a medical doctor was **significantly lower** in, District of Thunder Bay.
- **Significantly higher** rates of overweight or obesity compared to Ontario.
- Among the highest 8 Ontario sub-regions for total length of stay.

- 4<sup>th</sup> highest rate of all-cause potential years of life lost.
- 2<sup>nd</sup> highest mean length of stay for inpatient rehabilitation.
- District of Thunder Bay residents had the 3<sup>rd</sup> highest ED visit rate for MH/SA conditions.
- 3<sup>rd</sup> lowest percentage of residents who reported attachment to a primary care provider.
- 7<sup>th</sup> highest percentage of residents who found it difficult to access care after-hours without going to an emergency department.
- In 2017/18, residents of the District of Thunder Bay had the **longest** wait before being discharged from hospital with an ALC designation (closed cases).
- At the end of 2017/18, residents of District of Thunder Bay had been waiting the 3<sup>rd</sup> longest for discharge from an ALC designation in hospital (open cases).

### Population Characteristics

- 8<sup>th</sup> lowest population density.
- 7<sup>th</sup> highest percentage of residents reporting Aboriginal identity.
- 5<sup>th</sup> lowest small for gestational age rate in the province.
- 8<sup>th</sup> highest large for gestational age rate in the province.
- Among the eight highest sub-regions in total home service visit rates in 2017/18.
- Among the eight lowest sub-regions in nursing visit rates in 2017/18.
- Among the eight sub-regions with the highest service hour rates for personal support.
- Residents of **City of Thunder Bay** had the 6<sup>th</sup> highest mental health active case rate
- 4<sup>th</sup> lowest percentage of patients with two or more acute inpatient admissions in the last 30 days of life.
- 4<sup>th</sup> lowest rate of palliative home visits in the last 90 days of life in 2016/17.

### Strengths

- **City of Thunder Bay** had the 7<sup>th</sup> lowest percentage of participants in the labour force with a commuting duration of 60 minutes and over.
- **Lowest** percent of residents with one or more unplanned ED visits in the last 30 days of life.

### Challenges/Opportunities

- 7<sup>th</sup> highest stillbirth rate in the province.
- Compared to Ontario, the proportion of people having a medical doctor was **significantly lower** in the **City of Thunder Bay**.
- **Significantly higher** rates of overweight or obesity compared to Ontario.
- **Significantly higher** smoking rate compared to Ontario.
- Compared to Ontario, the proportion of residents consuming fewer than 5 servings of fruits or vegetables per day was **significantly higher** in the **City of Thunder Bay**.
- **Significantly higher** prevalence rate for arthritis than Ontario.
- Among the 8 sub-regions with the highest hospitalization rates for diabetes, hypertension, and respiratory disease.
- Among the 8 sub-regions with the highest mean cost per healthcare user.
- Among the 8 sub-regions with the highest percentage of high cost healthcare users.
- 7<sup>th</sup> highest mean length of stay for inpatient rehabilitation.
- 7<sup>th</sup> highest mean all-cause potential years of life lost.
- 4<sup>th</sup> lowest percentage of residents who were satisfied with health care in their community.
- 5<sup>th</sup> lowest percentage of residents who reported attachment to a primary care provider.
- 4<sup>th</sup> lowest percentage of residents who were able to see their provider the same day or next day when they were sick.
- **Highest** percentage who went to a walk in clinic for something that could have been treated by a provider if they were available.
- **City of Thunder Bay** residents had the 7<sup>th</sup> highest ED visit rate for MH/SA conditions.



### Population Characteristics

- 4<sup>th</sup> lowest population. According to the census, this sub-region had the 5<sup>th</sup> greatest decrease in population between 2011 and 2016.
- **Lowest** percentage of population aged 65+ and of population aged 75+.
- **Highest** dependency ratio of all Ontario sub-regions.
- 2<sup>nd</sup> lowest population density.
- 2<sup>nd</sup> lowest percentage of residents who report French as their mother tongue.
- 3<sup>rd</sup> lowest percentage of residents who meet the new inclusive definition of Francophone.
- 6<sup>th</sup> lowest percentage residents who were immigrants.
- 2<sup>nd</sup> lowest percentage of residents who were first generation Canadian.
- **Lowest** percentage of population who were visible minorities in the province.
- 2<sup>nd</sup> highest percentage of residents reporting Aboriginal identity.
- **Highest** percentage of residents with less than high school.
- 8<sup>th</sup> lowest percentage of residents with only high school completion.
- **Lowest** percentage of residents with bachelor's degree completion and beyond in the province.
- 4<sup>th</sup> lowest percentage of residents with post-secondary education below bachelor's degree.
- 5<sup>th</sup> lowest percentage of residents spending 30% or more of household income on rent or payments.
- 2<sup>nd</sup> highest crude birth rate in the province.
- 2<sup>nd</sup> highest fertility rate for 15-49 year olds in the province.
- 2<sup>nd</sup> highest fertility rate for teenagers in the province.
- 2<sup>nd</sup> lowest overall mean age of women giving birth in the province.
- 2<sup>nd</sup> lowest mean age of mothers at the birth of their first infant in the province.
- **Northern** tied with **District of Kenora** for the 2<sup>nd</sup> lowest multiple live birth rate in the province.
- 2<sup>nd</sup> highest large for gestational age rate in the province.
- Among the eight lowest sub-regions in total home service visit rates per 1,000 population in 2017/18.
- Among the eight highest sub-regions in nursing visit rates per 1,000 population in 2017/18.
- Among the eight sub-regions with the lowest service hour rates per 1,000 population for personal support.
- 2<sup>nd</sup> highest percentage of palliative care patients discharged from hospital who visited the ED at least once within 30 days.
- 2<sup>nd</sup> lowest percent of residents with one or more unplanned ED visits in the last 30 days of life.
- 5<sup>th</sup> lowest rate of palliative home visits in the last 90 days of life in 2016/17.
- Residents of **Northern** spent substantially fewer days at home in the last six months of life than Ontarians in general.
- Among the highest rates of acute care days per 1,000 residents in 2016/17.
- Among the longest acute length of stay in acute hospital beds in 2016/17.
- Among the highest acute separation rates from acute hospital beds in 2016/17.
- Residents of **Northern** had among the highest length of stay in acute hospital beds (including acute days and days waiting for an alternate level of care) in 2016/17.

### Strengths

- Of all 76 sub-regions, **Northern** had the **lowest** percentage of workforce participants with commuting duration of 60 minutes and over.
- 2<sup>nd</sup> lowest pre-term birth rate in the province.
- 3<sup>rd</sup> lowest low birth weight rate in the province.

#### Challenges/Opportunities

- 2<sup>nd</sup> highest percentage of dwellings in need of major repairs.
- **Highest** rate of households with an insufficient number of bedrooms to accommodate household size.
- 2<sup>nd</sup> highest percentage of residents age who were unemployed.
- Among the 8 sub-regions with the highest hospitalization rates for cardiovascular disease, cerebrovascular disease, chronic obstructive pulmonary disease, diabetes, ischemic heart disease, lower respiratory disease, respiratory disease, and stroke.
- Among the highest 8 sub-regions in mean cost per complex patient.
- Among the 8 sub-regions with the highest mean cost per high cost healthcare user.
- Among the highest 8 Ontario sub-regions for acute and total length of stay.
- **Highest** all-cause potentially years of life lost rate.
- 2<sup>nd</sup> highest all-cause premature mortality rate.
- 4<sup>th</sup> lowest percentage of residents who reported attachment to a primary care provider.
- **Highest** percentage of residents who went to the ED for something that could have been treated by a primary care provider.
- **Northern** residents had the **highest** ED visit rate for MH/SA conditions.

## Population Characteristics

### Population Estimates<sup>2</sup>

- As of 2016, the population of the North West LHIN is estimated to be 235,146, a 0.8% decrease from 2011.
- The population of the North West LHIN is projected to increase by 0.7% by 2021 and to increase by 0.8% by 2026.

### Population Estimates from 2016 Census and Ministry of Finance

	Ontario	North West	Comments†
2011 Census, total population	12,851,821	222,087	
2016 Census, total population	13,448,494	228,339	
Population growth between 2011 and 2016 (based on Census)	4.6%	2.8%	
Estimated population, 2011	13,263,544	237,071	
<b>Estimated population, 2016</b>	<b>13,982,984</b>	<b>235,148</b>	<b>Lowest</b>
% population age 65+	16.38%	17.49%	
% population age 75+	7.17%	7.46%	
<b>% population change estimated 2011-2016</b>	<b>5.4%</b>	<b>-0.8%</b>	2 <sup>nd</sup> lowest
Projected population, 2021	14,980,422	236,711	
Projected population, 2026	15,822,463	236,978	
% changes (based on changes from the 2016 estimates)			
% population change forecasted 2016-2021	7.1%	0.7%	
% population change forecasted 2016-2026	13.2%	0.8%	2 <sup>nd</sup> lowest

Sub-Region Name	Total population	Age 65plus	% 65+	Age 75plus	% 75+
District of Kenora	46,205	7,919	17.14%	3,224	6.98%
District of Rainy River	19,692	3,781	19.20%	1,667	8.47%
District of Thunder Bay	17,823	2,897	16.25%	1,060	5.95%
City of Thunder Bay	129,846	25,118	19.34%	11,104	8.55%
Northern	21,582	1,424	6.60%	495	2.29%

<sup>2</sup> Please see note in Ontario chapter on Census versus Ministry of Finance estimates.

### Census Demographics

- The populations 65 and over and 75 and over represent 18.1% and 7.8% of the total population respectively.
- 16.9% of the population was in the age group 0-14 and 65.0% was in the age group 15-64.
- The dependency ratio in North East at 69.4 was higher than the province (64.5).
- None of North West's population lived in large urban communities.
- The largest proportion of North West's population (45.8%) lived in medium/small population centre communities.
- 14.0% of North West's population lived in rural or small communities adjacent to urban areas communities.
- 40.1% of North West's population lived in rural and small town communities.
- North West's land mass measures 406,926 square kilometres making it the largest in the province.
- North West's population density was 0.6 persons per square kilometre making it the smallest in the province.

### Households

- In 2016, 38,705 households contained one or more family members aged 65 years and over. 28.7% of those individuals were living alone.
  - By sub-region, **District of Rainy River** had the highest rate of seniors living alone (31.0%) and **Northern** had the lowest (22.6%).
  - By sub-region and household size, **City of Thunder Bay** had the highest rate of one person households (31.6%) and **Northern** had the lowest (17.3%)
  - By sub-region and household size, **Northern** had the highest rate of 5 or more person households (28.6%) and **City of Thunder Bay** had the lowest (5.7%).
- In 2016, 36,840 families with children were living within the boundaries of the North West LHIN. 34.0% of those families were lone parent.
  - By sub-region, **Northern** had the highest rate of lone-parent families (41.1%) and **District of Rainy River** had the lowest (31.8%)
- The total number of owner and tenant households with household total income greater than zero, in non-farm, non-reserve private dwellings by shelter-cost-to-income ratio was 87,010. 18.3% of those households spent 30% or more of their income on rent or payments.
  - By sub-region, **City of Thunder Bay** had the highest rate (19.1%) and **District of Thunder Bay** had the lowest (15.5%).
- The total number of private households was 94,545. 70.0% of those were owner occupied, 24.3% were rented, and 5.7% were band housing.
  - By sub-region and owner occupation rate, **District of Rainy River** had the highest rate (75.1%) with **Northern** having the lowest (27.0%).
- 11.5% of the private households in the North West were in need of major repair, the **highest** in the province.
  - By sub-region and housing in need of repair rate, **Northern** had the highest rate (40.3%) and **City of Thunder Bay** had the lowest (7.6%).
- 4.4% of the private households in the North West LHIN had an insufficient number of bedrooms to accommodate the household makeup.
  - By sub-region and housing suitability, **Northern** had the highest rate of unsuitable housing (21.7%) and **District of Thunder Bay** had the lowest (2.8%).

## Language

- In 2016, 84.8% of the population reported English and just over 3% reported French as their mother tongue in North West LHIN.
  - By sub-region, [District of Rainy River](#) had the highest rate (92.2%) and [Northern](#) had the lowest rate of residents who identified English as their mother tongue (57.6%)
  - By sub-region, [District of Thunder Bay](#) had the highest rate (12.3%) and [Northern](#) had the lowest rate of residents who identified French as their mother tongue (0.6%).
- In 2016, 3.1% of North West LHIN residents were Francophone under the 2009 new Inclusive Definition of Francophone.
  - By sub-region, [District of Thunder Bay](#) had the highest proportion of Francophone residents (12.3%) and [Northern](#) had the lowest (0.7%).
- 0.4% of the LHIN's population reported no knowledge of either official language.
  - By sub-region, [Northern](#) reported the highest proportion of residents with no knowledge of English or French (1.6%). [District of Kenora](#) sub-region, [District of Rainy River](#) sub-region and [District of Thunder Bay](#) sub-region all reported the lowest rate (0.1%).
- 93.1% of the LHIN's population reported that English was the language most often spoken at home, followed by Ojibway-Potawatomi languages (2.3%), English and a non-official language (1.6%), French (0.9%) and Italian (0.4%).

## Income

- In the North West LHIN, 13.2% of the population lived on low income, based on the after-tax low income measure (LIM-AT).
  - The proportion of residents living below the low income measure varied by sub-region, from 10.7% in the [District of Kenora](#) sub-region to 14.8% in the [District of Thunder Bay](#) sub-region.
  - The proportion of households in the highest income quintile varied across sub-regions in the North West LHIN, from 7.2% in the [Northern](#) sub-region to 20.9% in the [City of Thunder Bay](#) sub-region.
- The proportion of households in the lowest income quintile ranged across sub-regions in the North West LHIN, from 18.6% in the [City of Thunder Bay](#) sub-region to 22.2% in the [District of Rainy River](#) sub-region.
- In the North West LHIN, 22.1% of children under the age of 6 lived in low income households.
  - By sub-region, children living in low income households ranged from 16.7% in the [District of Kenora](#) sub-region to 27.5% in the [Northern](#) sub-region.

## Immigration

- In 2016, immigrants accounted for 7.4% of the North West LHIN population, the second lowest proportion in the province. From 1980 to 2016, 41.2% of immigrants were admitted as economic immigrants, 41.5% were sponsored by family and 17.2% were admitted as refugees. 0.5% of North West LHIN residents were **recent immigrants**, having arrived in Canada between 2011 and 2016. Of the recent immigrants, the highest proportion (17.0%) came from the United States, followed by the Philippines (15.5%) and India (9.2%).
  - Among the five North West LHIN sub-regions, the percentage of immigrants ranged from 5.1% in the [District of Thunder Bay](#) and [District of Rainy River](#) to 8.8% in the [City of Thunder Bay](#).
  - The percentage of recent immigrants ranged from 0.3% in [District of Rainy River](#) to 0.7% in [Northern](#).

- In 2016, 7.7% of the North West LHIN population were **first generation Canadians** (the second lowest proportion in the province).
  - Among the five North West LHIN sub-regions, the percentage of first generation Canadians ranged from 1.8% in [Northern](#) to 9.7% in the [City of Thunder Bay](#).

#### Visible Minorities

- In 2016, 2.9% of the North West LHIN population was a visible minority, the second lowest proportion in the province.
  - Among the five North West LHIN sub-regions, the percentage of visible minorities ranged from 1.2% in [Northern](#) to 3.9% in the [City of Thunder Bay](#).

#### Indigenous (Aboriginal) Identity

- 24.8% of the North West LHIN's residents identified as Aboriginal (the highest proportion in the province), with 20.2% identifying as First Nations and 4.3% as Métis.
  - Among the five North West LHIN sub-regions, the percentage of residents reporting Aboriginal identity ranged from 13% in the [City of Thunder Bay](#) to 82.6% in [Northern](#).

#### Education

- In 2016, 18.8% of North West LHIN residents of working age had completed post-secondary education, ranking 12<sup>th</sup> across the province.
  - Across North West sub-regions, the percentage of the population with less than high school ranged from 12.2% in [City of Thunder Bay](#) to 48.9% in [Northern](#).
  - The percentage of the population with high school completion ranged from 18.4% in [Northern](#) to 30.9% in [District of Rainy River](#).
  - The percentage of the population with post-secondary education below bachelor's degree ranged from 23.7% in [Northern](#) to 41.6% in [District of Thunder Bay](#).
  - The percentage of the population with bachelor's degree completion and beyond ranged from 8.4% in [Northern](#) to 23.2% in [City of Thunder Bay](#).

#### Labour Force Participation

- In 2016, North West LHIN residents aged 15+ had a labour force participation rate of 61%, and an unemployment rate of 9.0%, the 2<sup>nd</sup> highest of all LHINs.
- Of those employed in 2016, 15% (the **lowest** of all of the LHINs) of North West LHIN residents had a commute time from their residence to their place of work of 30 minutes or more, while 6.1% (the **lowest** of all of the LHINs) had a commute time of 45 minutes or more.

2016 Census Profile	Ontario	North West	Comments†
<b>Census Population 2016</b>			
Dependency ratio (number of "dependents" for every 100 "workers")	64.5	69.4	
<b>Urban-Rural Gradient</b>			
% large urban	68.1%	0.0%	Lowest (tied)
% medium/small population centre	14.7%	45.8%	2 <sup>nd</sup> highest
% rural or small communities adjacent to urban areas	8.4%	14.0%	
% rural and small town	8.8%	40.1%	Highest
Land Area (sq km)	908,699	406,926	Highest
Population Density (persons per square kilometre)	14.8	0.6	Lowest
<b>Population by Household and Families</b>			
% of people age 65+ living alone	23.5%	28.7%	2 <sup>nd</sup> highest
% of dwellings in need of major repairs	6.1%	11.5%	Highest
% of households with an insufficient # of bedrooms	6.0%	4.4%	
<b>Language</b>			
% who report English as their mother tongue	69.5%	84.8%	
% who report French as their mother tongue	4.3%	3.1%	
% with no knowledge of English or French	2.5%	0.4%	
% Francophone (IDF)	4.7%	3.1%	
<b>Population (in Private Households) Living in Low Income</b>			
% Population living below low-income measure (LIM-AT)	14.4%	13.2%	
% Children living in low income households/LIM (age<6)	19.8%	22.1%	
% Children living in low income households/LIM (age<18)	18.4%	18.7%	
% Seniors living in low income households/LIM (age 65+)	12.0%	10.9%	
<b>Immigration</b>			
% of population who are immigrants	29.1%	7.4%	2 <sup>nd</sup> lowest
% of population who arrived within 5 years	3.6%	0.5%	2 <sup>nd</sup> lowest
% first generation Canadian (children of immigrants)	31.1%	7.7%	2 <sup>nd</sup> lowest
<b>Visible Minorities</b>			
% of population who are visible minorities	29.3%	2.9%	2 <sup>nd</sup> lowest
<b>Indigenous Identity</b>			
% of population of Aboriginal identity	2.8%	24.8%	Highest
% population First Nations identity	1.8%	20.2%	
% population Metis identity	0.9%	4.3%	
% population Inuk identity	0.0%	0.0%	
% Multiple Aboriginal responses	0.0%	0.2%	
% Aboriginal responses not included elsewhere	0.1%	0.2%	
<b>Educational Attainment</b>			
% Population age 25-64 with less than high school	10.4%	16.7%	Highest
% Population age 25-64 with high school completion	24.5%	25.5%	
% Population age 25-64 with post-secondary education below bachelor's degree	33.2%	39.0%	
% Population age 25-64 with bachelor's degree completion and beyond	31.9%	18.8%	
<b>Labour Force Activity</b>			
% In the labour force (Participation rate)	64.7%	60.6%	
% Unemployed	7.4%	9.0%	2 <sup>nd</sup> highest
% 60 minutes and over commuting duration	12.4%	3.9%	2 <sup>nd</sup> lowest

†Highest/lowest ranking in the province, compared to other LHINs.

## Sub-Region Profiles, 2016 Census

Sub-Region	District of Kenora	District of Rainy River	District of Thunder Bay	City of Thunder Bay	Northern
<b>Census Population 2016</b>					
Dependency ratio (number of "dependents" for every 100 "workers")	69.9	77.1	67.6	66.0	86.8
<b>Urban-Rural Gradient</b>					
% large urban	0.0%	0.0%	0.0%	0.0%	0.0%
% medium/small population centre	25.5%	0.0%	0.0%	74.1%	0.0%
% rural or small communities adjacent to urban areas	10.5%	0.0%	1.8%	21.5%	0.0%
% rural and small town	64.0%	100.0%	98.2%	4.4%	100.0%
Land Area (sq km)	40,512	15,487	54,781	31,220	264,926
Population Density (persons per square kilometre)	1.0	1.3	0.3	4.1	0.1
<b>Population by Household and Families</b>					
% of people age 65+ living alone	26.8%	31.0%	28.2%	29.4%	22.6%
% Of dwellings in need of major repairs	13.5%	11.7%	13.0%	7.6%	40.3%
% of households with an insufficient # of bedrooms	4.5%	4.2%	2.8%	2.9%	21.7%
<b>Language</b>					
% who report English as their mother tongue	89.3%	92.2%	83.1%	86.9%	57.6%
% who report French as their mother tongue	2.7%	1.5%	12.3%	2.6%	0.6%
% with no knowledge of English or French	0.1%	0.1%	0.1%	0.4%	1.6%
% Francophone	2.7%	1.6%	12.3%	2.6%	0.7%
<b>Population (in Private Households) Living in Low Income</b>					
% Population living below low-income measure (LIM-AT)	10.7%	13.7%	14.8%	13.7%	13.1%
% Children living in low income households/LIM (age<6)	16.7%	20.7%	26.0%	23.2%	27.5%
% Children living in low income households/LIM (age<18)	14.8%	17.5%	21.1%	19.7%	21.7%
% seniors living in low income households/LIM (age 65+)	10.4%	14.2%	12.4%	10.4%	12.1%
<b>Population by Income Quintiles</b>					
% Economic families in Income quintile 1 - lowest income	19.3%	22.2%	21.8%	18.6%	42.7%
% Economic families in Income quintile 2	16.8%	19.4%	18.8%	17.9%	24.6%
% Economic families in Income quintile 3	19.4%	20.2%	19.1%	20.4%	14.5%
% Economic families in Income quintile 4	22.3%	21.9%	21.6%	22.2%	11.1%
% Economic families in Income quintile 5 - highest income	22.2%	16.3%	18.5%	20.9%	7.2%



Sub-Region	District of Kenora	District of Rainy River	District of Thunder Bay	City of Thunder Bay	Northern
<b>Immigration</b>					
% of population who are immigrants	6.0%	5.1%	5.1%	8.8%	5.6%
% of population who arrived within 5 years	0.5%	0.3%	0.5%	0.6%	0.7%
% first generation Canadian (children of immigrants)	6.1%	6.2%	5.0%	9.7%	1.8%
<b>Visible Minorities</b>					
% of population who are visible minorities	1.9%	1.3%	1.9%	3.9%	1.2%
<b>Indigenous Identity</b>					
% of population of Aboriginal identity	29.0%	27.3%	29.7%	13.0%	82.6%
% population First Nations identity	20.0%	19.5%	24.7%	9.9%	81.0%
% population Metis identity	8.6%	7.3%	4.3%	2.9%	1.3%
% population Inuk identity	0.1%	0.0%	0.0%	0.0%	0.0%
% Multiple Aboriginal responses	0.2%	0.3%	0.3%	0.1%	0.1%
% Aboriginal responses not included elsewhere	0.2%	0.2%	0.3%	0.1%	0.2%
<b>Educational attainment</b>					
% Population age 25-64 with less than high school	16.3%	14.2%	20.8%	12.2%	48.9%
% Population age 25-64 with high school completion	27.9%	30.9%	25.4%	24.8%	18.4%
% Population age 25-64 with post-secondary education below bachelor's degree	40.6%	41.5%	41.6%	39.7%	23.7%
% Population age 25-64 with bachelor's degree completion and beyond	15.3%	13.3%	11.8%	23.2%	8.4%
<b>Labour Force Activity</b>					
% In the labour force (Participation rate)	62.9%	59.7%	57.2%	60.8%	57.8%
% Unemployed	9.1%	9.1%	11.1%	7.9%	16.1%
% 60 minutes and over commuting duration	4.6%	6.9%	7.5%	3.1%	1.3%

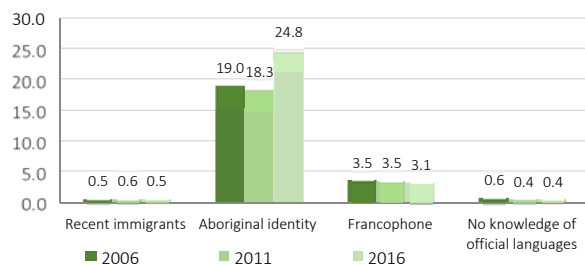
## North West

### 2016 Census Profile Summary

#### Number of private dwellings

2006	113,228
2011	111,208
2016	114,101

#### Immigration, identity and language (% of population)

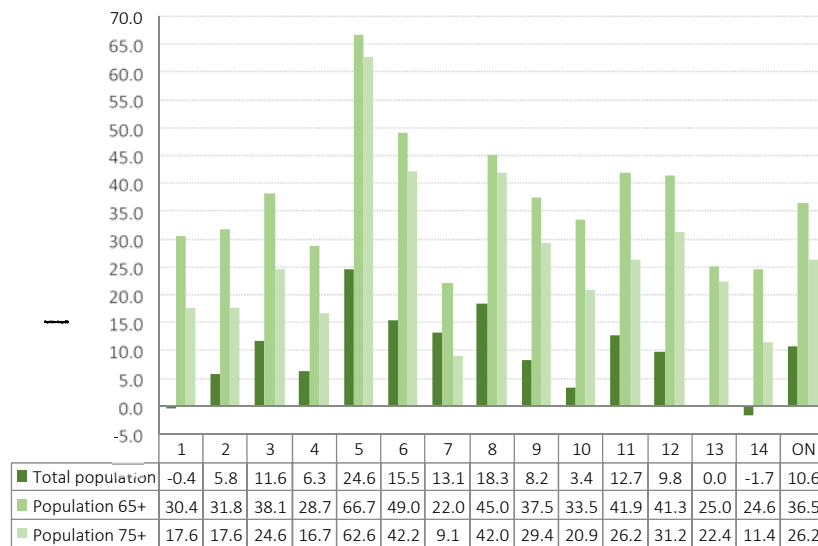


#### Population change (2006-2016)

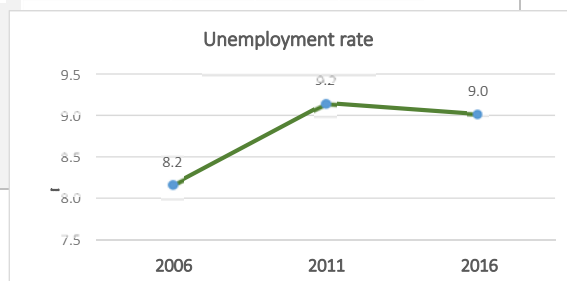
The growth of the senior (65+) population across LHINs ranged from 67% in Central West to 22% in Toronto Central.

The growth of the population age 75+ in North West between 2006 and 2016 was 11.4%, compared to 26.2% for the province as a whole. Total LHIN population growth was -1.7% for the same period.

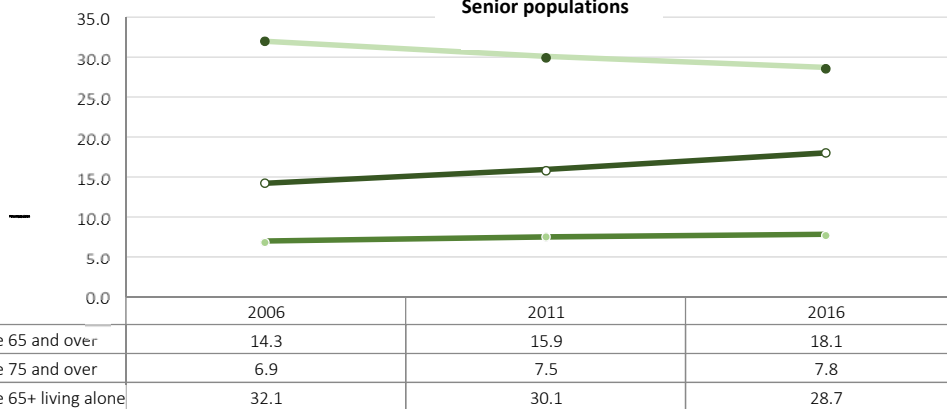
#### Population change, 2006 to 2016, by LHIN



#### Change in unemployment rate, 2006 to 2016 = 10.4%



#### Senior populations



## Births and Mortality

### Births and Maternal Age

- In FY 2016/17, there were 2,387 pregnancies and 2,410 births to North West women. 98% of births took place in a hospital; the remaining 2% were in the home, birth centre or other (including nursing stations, births outside of Ontario and other Ontario locations).
- In 2016, the crude birth rate (per 1,000 population) in North West was 10.1.
  - By sub-region, **Northern** and **District of Rainy River** had the 2<sup>nd</sup> and 7<sup>th</sup> highest crude birth rates in the province (19.0 and 11.6, respectively).
- The fertility rate per 1,000 North West females of reproductive age (15 to 49) was 47.0, the highest rate in the province.
  - By sub-region, **Northern** and **District of Rainy River** had the 2<sup>nd</sup> and 5<sup>th</sup> highest fertility rates for 15-49 year olds in the province (77.4 and 57.0, respectively).
- For teenagers (15 to 19), the fertility rate per 1,000 North West females was 26.0, the highest rate in the province.
  - By sub-region, **Northern**, **District of Thunder Bay**, **District of Rainy River** and **District of Kenora** had the 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> highest fertility rates for teenagers in the province (69.0, 39.7, 26.0 and 20.6, respectively).
- In FY2016, 7.0% of women who gave birth were under 20 years of age, the highest proportion in the province. 13.0% of women were 35 years or older, the 2<sup>nd</sup> lowest proportion in the province.
- The overall mean age of mothers giving birth in this LHIN was 28.0, the lowest overall mean age in the province.
  - By sub-region, **Northern**, **District of Thunder Bay**, **District of Kenora** and **District of Rainy River** had the 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> lowest overall mean age in the province (26.0, 26.8, 27.4 and 27.6, respectively).
- In 2016, the stillbirth rate per 1,000 live births in North West was 10.4, the **highest** rate in the province.
  - By sub-region, **District of Kenora** and **City of Thunder Bay** have the 2<sup>nd</sup> and 7<sup>th</sup> highest stillbirth rates in the province (12.9 and 11.1, respectively).

### Multiple Births

- The multiple live birth rate per 100 live births in 2016 was 1.4, the **lowest** rate in the province.
  - By sub-region, **District of Kenora** and **Northern** had the 2<sup>nd</sup> lowest (tied) multiple live birth rate in the province (0.0).

### Pre-Term Births

- In 2016, the pre-term birth rate per 100 live births was 6.8, the **lowest** rate in the province.
  - By sub-region, **District of Kenora** and **Northern** had the **lowest** and 2<sup>nd</sup> lowest pre-term birth rate in the province (1.8 and 4.2, respectively).

### Size for Gestational Age and Birth Weight

- The low birth weight rate per 100 live births in North West was 4.4, the **lowest** rate in the province.
  - By sub-region, **District of Kenora**, **Northern**, **District of Rainy River** and **District of Thunder Bay** had the 2<sup>nd</sup>, 3<sup>rd</sup>, 6<sup>th</sup> and 8<sup>th</sup> lowest low birth weight rate in the province (1.3, 2.2, 4.3 and 4.5, respectively).
  -
- In 2016, the small for gestational age rate per 100 live births was 6.3, the **lowest** rate in the province.

- By sub-region, **District of Kenora** and **City of Thunder Bay** had the 2<sup>nd</sup> and 5<sup>th</sup> lowest small for gestational age rate in the province (5.2 and 5.8, respectively).
- In 2016, the large for gestational age rate per 100 live births was 16.4, the **highest** rate in the province.
  - By sub-region, **Northern**, **District of Rainy River**, **District of Kenora**, **District of Thunder Bay** and **City of Thunder Bay** had the 2<sup>nd</sup>, 3<sup>rd</sup>, 5<sup>th</sup>, 6<sup>th</sup> and 8<sup>th</sup> highest large for gestational age rates in the province (20.7, 20.3, 17.2, 16.1 and 14.2, respectively).

#### Attendants, Assisted Delivery & Epidural Anaesthesia during Labour

- In North West, 41.1 % of hospital births were attended by an obstetrician, the **lowest** proportion in the province. 40.6% of births were attended by a family doctor and 15.8% were attended by a midwife. Both of these proportions were the **highest** in the province.
- Among vaginal deliveries, the overall assisted delivery rate for North West women was 6.0 and using forceps was 0.7. Both rates were the **lowest** in the province. Assisted delivery rate using vacuum extraction was 5.3.
- The epidural rate for vaginal deliveries was 17.0 and for all deliveries, 16.6. Both rates were the **lowest** rates in the province.

#### Caesarean Deliveries

- In FY 2016/17, the total Caesarean section rate per 100 deliveries was 23.8, the **lowest** rate in the province.
- The rate of primary Caesarean section rate (the mother's first Caesarean, regardless if she had given birth vaginally before) was 15.5 per 100 deliveries, the **lowest** rate in the province. Primary Caesarean section rate was lower in women under 35 years of age (14.6) compared to those 35 and over (22.0).
- The rate of repeat Caesarean sections in North West was 76.1 per 100 deliveries, the 2<sup>nd</sup> lowest rate in the province.

#### Breastfeeding

- The rate of exclusive breastfeeding at discharge among term live births in this LHIN was 64.6%.

## Births and Maternal Outcomes, Ontario

	North West	Ontario	Comments <sup>†</sup>
Total births in Ontario, LHIN of maternal residence	2,410	141,163	
Hospital	2,352	136,505	
Home	50	3,813	
Birth Centre	0	572	
Crude birth rate (per 1,000 population)	10.1	9.8	
Stillbirth rate (per 1,000 live births)	10.4	8.1	Highest
Multiple live birth rate (per 100 live births)	1.4	3.3	Lowest
Rate of preterm birth (<37 weeks) (%) <sup>*</sup>	7.3%	8.2%	2 <sup>nd</sup> lowest
Preterm birth rate (per 100 live births) <sup>**</sup>	6.8	8.1	Lowest
Total pregnancies in Ontario, LHIN of maternal residence	2,387	138,781	
Fertility rate (per 1,000 females of reproductive age)			
Overall rate (15 to 49)	47.0	41.2	Highest
Teen rate (15 to 19)	26.0	6.3	Highest
Distribution of maternal age (%)			
<20	7.0%	1.9%	Highest
≥ 35	13.0%	23.8%	2 <sup>nd</sup> lowest
Mean age of mother at birth of first infant	26.2	29.3	Lowest
Overall mean age of mother at birth	28.0	30.7	Lowest
Rate of Caesarean delivery (%), LHIN of hospital	22.9%	28.4%	Lowest
Total Caesarean Section Rate	23.8	28.4	Lowest
Primary Caesarean Section Rate, LHIN of patient	15.5	19.0	Lowest
Primary C-Section Rate (< 35 years)	14.6	17.9	Lowest
Primary C-Section Rate (≥ 35 years)	22.0	22.9	
Repeat Caesarean Section Rate	76.1	82.7	2 <sup>nd</sup> lowest
Epidural Rate for Vaginal Deliveries	17.0	60.3	Lowest
Epidural Rate for All Deliveries	16.6	51.0	Lowest
Assisted Delivery Rate Among Vaginal Deliveries			
Overall	6.0	12.3	Lowest
Vacuum Extraction	5.3	9.1	
Forceps	0.7	2.8	Lowest
Healthcare provider who caught the baby for hospital births (%), LHIN of hospital			
Obstetrician	41.4%	78.8%	Lowest
Family doctor	40.6%	7.4%	Highest
Midwife	15.8%	7.4%	Highest
Other	2.2%	6.4%	
Low birth weight rate (per 100 live births)	4.4	6.8	Lowest
Fullterm low birth weight rate (per 100 live births)	1.2	2.0	Lowest
Births small for gestational age (%) <sup>*</sup>	6.1%	9.7%	Lowest
Small for gestational age (per 100 live births) <sup>**</sup>	6.3	9.6	Lowest
Births large for gestational age (%) <sup>*</sup>	16.5%	9.7%	Highest
Large for gestational age (per 100 live births) <sup>**</sup>	16.4	9.8	Highest
Rate of exclusive breastfeeding among term live hospital births (%), LHIN of maternal residence	64.6%	62.8%	

<sup>†</sup>Ranking in the province compared to other LHINs.

<sup>\*</sup> As reported by BORN Ontario

<sup>\*\*</sup> As reported by Public Health Ontario

# **Maternal smoking, alcohol and drug use during pregnancy among all women who live in Ontario and who had a live birth or stillbirth (LHIN of maternal residence), 2016/17 (BORN)**

- In North West, the rate of women who self-identified as non-smokers at first prenatal visit was 69.1%, the **lowest** proportion in the province. At the time of labour, 73.0% were non-smokers, the **lowest** proportion in the province.
  - The prevalence of smoking 1-10 cigarettes and 10+ cigarettes at the first prenatal visit was 23.3% and 6.8%, respectively.
- 7.2% of the women reported drinking alcohol, the **highest** proportion in the province. 13.1% reported using drugs during pregnancy, the **highest** proportion in the province.

	North West	Ontario	Comments <sup>†</sup>
<b>Maternal smoking at first prenatal visit (%) LHIN of maternal residence‡</b>			
% women who reported smoking (0) cigarettes/day	69.1%	90.7%	<i>Lowest</i>
% women who reported smoking (1 – 10) cigarettes/day	23.3%	5.5%	<i>Highest</i>
% women who reported smoking (10+) cigarettes/day	6.8%	3.2%	
<b>Maternal smoking at time of labour (%)</b>			
% women who reported smoking (0) cigarettes/day	73.0%	92.5%	<i>Lowest</i>
% women who reported smoking (1 – 10) cigarettes/day	20.4%	4.6%	<i>Highest</i>
% women who reported smoking (10+) cigarettes/day	5.8%	2.6%	
Alcohol consumption during pregnancy (%)	7.2%	2.6%	<i>Highest</i>
Drug and substance exposure during pregnancy (%)	13.1%	2.3%	<i>Highest</i>

<sup>†</sup>Ranking in the province compared to other LHINs.

## **Life Expectancy**

- Life expectancy at birth for both males and females in 2012-2014 was 78 years, the **lowest** rate amongst all the LHINs. By sex, life expectancy at birth for males in North West LHIN was 76 years, and 81 years for females, both the **lowest** in the province.
- Life expectancy at age 65 for both sexes from 2012-2014 was 20 years, the second lowest in the province. By sex, life expectancy at age 65 for males in North West LHIN was 18 years. Life expectancy at age 65 for females from 2012-2014 was 21 years, the **lowest** amongst all the LHINs.

	North West LHIN	Ontario	Rank among LHINs <sup>†</sup>
<b>Life Expectancy</b>			
<b>Life expectancy at birth- Both Sexes 2012-14</b>	78.3	82.3	<i>Lowest</i>
<b>Life expectancy at birth- Male 2012-14</b>	76.1	80.2	<i>Lowest</i>
<b>Life expectancy at birth- Female 2012-14</b>	80.5	84.3	<i>Lowest</i>
<b>Life expectancy at age 65- Both Sexes 2012-14</b>	19.6	20.9	<i>2<sup>nd</sup> lowest</i>
<b>Life expectancy at age 65- Male 2012-14</b>	18.2	19.3	<i>2<sup>nd</sup> lowest</i>
<b>Life expectancy at age 65- Female 2012-14</b>	20.9	22.2	<i>Lowest</i>

<sup>†</sup>Ranking in the province compared to other LHINs (highest and lowest 2).

### Mortality and Potential Years of Life Lost

- In 2012, 2,106 North West LHIN residents died.
- The all-cause mortality rate for LHIN residents was 889 per 100,000 population in 2012; the third highest rate in the province. By sub-region, [District of Rainy River](#) had the fifth highest mean annual, all-cause mortality rate per 100,000 population (1,042).
  - By sub-region, [Northern](#) had the second highest (67%) and [District of Thunder Bay](#) (50%) had the third highest mean annual, all-cause premature mortality rate per 100,000 population.
- Ischaemic heart disease was the leading cause of death in North West, followed by Dementia and Alzheimer's disease and cancer of lung and bronchus.
- 15,832 years of potential life were lost by LHIN residents in 2012.
  - By sub-region, [Northern](#) had the **highest** mean annual, all-cause PYLL rate per 100,000 in the province (19,053). [District of Thunder Bay](#) had the fourth highest rate of mean annual all-cause PYLL per 100,000 (8,551). [District of Kenora](#) had the fifth highest rate amongst all the sub-regions in the province, (7,395) and [City of Thunder Bay](#) had the seventh highest rate (7,022).
- The LHIN's PYLL rate for 2012 was 7,197 per 100,000 population, the **highest** rate in the province. Since 2007, the PYLL rate increased by 14.3% for North West LHIN residents.
- The leading causes of PYLL in 2012 were Intentional self-harm, Ischaemic heart disease and accidental poisoning.

## Mortality, Potential Years of Life Lost

	North West LHIN	Ontario	Rank among LHINs†	Range across NW sub-regions (2010-2012)
<b>Mortality, 2012</b>				
Total deaths, 2012	2,106	90,525		120- 1,241
% change in total deaths (2007-2012)	9.5%	4.1%		NA
All-cause mortality rate per 100,000 population	888.7	674.9		868.9- 1,042.4
% change in all-cause mortality rate (2007-2012)	11.3%	-0.7%		NA
% of deaths that were premature (age < 75)	41.0%	37.3%		35.9%- 67.3%
<b>Top 10 leading causes of death, 2012 (rates per 100,000 population)<sup>3</sup></b>				
Ischaemic heart disease	136.3	98.0		67.8- 172.6
Dementia & Alzheimer's disease	69.6	55.6		43.2- 96.6
Cancer of lung & bronchus	62.5	50.3		43.4- 97.7
Cerebrovascular diseases	43.5	36.6		30.1- 67.1
Chronic lower respiratory diseases	37.6	28.4		40.5- 60.5
Cancer of colon, rectum, anus	26.2	23.4		22.9- 39.3
Diabetes	38.0	20.7		32.9- 75.9
Cancer of lymph, blood & related	24.5	20.0		21.4- 30.5
Falls	27.4	17.4		24.5- 26.2
Intentional self-harm	21.9	9.1		16.7- 86.8
<b>Potential years of life lost (PYLL), 2012</b>				
Total PYLL, 2012	15,832	551,256		1,060- 8,179
% change in PYLL (2007-2012)	12.2%	-0.6%		NA
PYLL rate per 100,000 population (age < 75)	7,197	4,405	Highest	6,720.4- 19,052.8
% change in PYLL rate (2007-2012)	14.3%	-5.0%		NA
<b>Top 10 leading causes of PYLL, 2012 (rates per 100,000 population, age &lt; 75)<sup>4</sup></b>				
Ischaemic heart disease	524.6	406.8		440.9- 955.2
Cancer of lung & bronchus	357.3	322.6		316.7- 763.8
Intentional self-harm	919.1	284.7		399.6- 4,365.5
Perinatal conditions	272.7	253.3		0.0- 417.9
Accidental poisoning	496.4	190.6		207.9- 1,150.6
Transport accidents	427.8	171.8		255.4- 1,089.3
Congenital malformations, deformations,	260.0	149.0		0.0- 507.1
Cancer of breast	205.5	147.0		82.4- 338.0
Cirrhosis & other liver diseases	271.8	133.5		NA
Diabetes	336.4	110.9	Highest	NA

†Ranking in the province, compared to other LHINs.

<sup>3</sup> Mean rate from 2010-2012

<sup>4</sup> Mean rate from 2010-2012



## General Health, Risk Factors, and Prevention

### General Health

- In 2015-16, only 55% of North West LHIN residents said they had very good or excellent health, significantly less than in Ontario overall (61%).
- 68% reported very good or excellent mental health. The proportion declined between 2005 and 2014, as it did for Ontario overall.
- 19% of North West residents reported that most days were “quite a bit” or “extremely” stressful.

### Prevention

- A significantly smaller proportion (85%) of North West residents reported having a regular medical doctor, compared with Ontario. This is the lowest rate among all of the LHINs. Compared to Ontario, the proportion of people having a medical doctor is **significantly lower** in the [District of Kenora](#), [District of Thunder Bay](#) and [City of Thunder Bay](#) sub-regions.
- 36% of residents of North West LHIN indicated that they received a flu shot in the year preceding the survey.

### Risk Factors

- The proportion (24%) of North West residents who reported daily or occasional smoking in 2015-16 was **significantly higher** than the Ontario rate. Compared to Ontario, **significantly higher** smoking rates were found in the [City of Thunder Bay](#) sub-region.
- The proportion of people (12%) exposed to second hand smoke in the home is also **significantly higher**, and almost double, the Ontario rate (7%).
- 24% of North West residents reported heavy drinking—a **significantly higher** rate than Ontario (18%). Heavy drinking is defined as having consumed 5 or more drinks for males and 4 or more drinks for women on at least one occasion at least once a month during the past year.
- The proportion of North West residents (69%) who were either overweight or obese is **significantly higher** than the Ontario rate of 61%. Rates have increased over time, as they have in Ontario, overall. The obesity rate of 34% is also **significantly higher** than the Ontario rate of 26%.
- Four of five North West LHIN sub-regions- [District of Kenora](#), [District of Rainy River](#), [District of Thunder Bay](#), and [City of Thunder Bay](#)- have **significantly higher** rates of overweight or obesity compared to Ontario. The rate of overweight or obesity, in the [Northern](#) sub-region rate is also very high<sup>5</sup>.
- 39% of North West residents were physically inactive—now defined as less than 150 minutes of moderate to vigorous activity per week.
- 72% of North West residents did not consume enough fruits and vegetables (i.e., had fewer than 5 servings of fruits or vegetables daily). Compared to Ontario, the proportion of residents consuming less than 5 servings per day is **significantly higher** in the [City of Thunder Bay](#).

---

<sup>5</sup> High coefficient of variation. Interpret with caution.

## General Health, Risk Factors, and Prevention; North West LHIN

	North West LHIN 2015-16	Ontario (2015-16)	Rank among LHINs <sup>†</sup> (2015-16)	Range across NE sub- regions (2011-14)*
<b>General Health</b>				
General health, % of the population age 12+ with...				
Very good or excellent self-perceived health	55%	61%	Lowest	49-64%
Very good or excellent self-perceived mental health	68%	71%		66-78%
Days that are 'quite a bit' or 'extremely' stressful (age 15+)	19%	22%	2 <sup>nd</sup> Lowest	
<b>Prevention</b>				
Use of Health Services and Preventive Care, % of the population age 12+ who...				
Have a regular medical doctor	85%	90%	Lowest	77-87%
Have consulted with family doctor/general practitioner (past yr)	72%	74%		
Received flu shot in the past year	36%	33%		
<b>Risk Factors</b>				
Risk factors, % of the population age 12+ who...				
Are daily or occasional smokers	24%	17%	2 <sup>nd</sup> highest	19-26% <sup>c</sup>
Are exposed to second-hand smoke in the home	12%	6.9%	Highest	
Are heavy drinkers	24%	18%	Highest	
Are overweight or obese (age 18+)	69%	61%	2 <sup>nd</sup> highest	62-67% <sup>c</sup>
Are overweight (age 18+)	35%	35%		26-39% <sup>c</sup>
Are obese (age 18+)	34%	26%		23-37% <sup>c</sup>
Are physically inactive	39%	42%	3 <sup>rd</sup> lowest	28-41% <sup>c</sup>
Consume < 5 servings of fruits/vegetables daily	72%	72%		46-67% <sup>c</sup>

\*2011-2014 sub-region rates are not directly comparable with LHIN and Ontario rates from 2015-16 due to significant changes the CCHS sampling design, data collection, survey weighting, and questionnaire content.

<sup>†</sup>Top or bottom 3 ranking in the province, compared to other LHINs. Interpret with caution, rank based on point estimate, which may or may not be significantly different from Ontario. See significance flags for each measure below.

<sup>1</sup> LHIN is **significantly higher** than Ontario

<sup>-1</sup> LHIN is **significantly lower** than Ontario

<sup>c</sup> Estimates with high sampling variability (CV between 16.6 -33.3) must be used with caution.

## Chronic Conditions

### Prevalence, mortality, hospital separations and hospital days of stay for selected chronic conditions

- 44.5% of North West residents (aged 12+) reported having a one or more chronic conditions with 16.8% having two or more chronic conditions.
- Of note, the prevalence rate for residents with one or more chronic conditions was **significantly higher** than Ontario.
- The mean health care cost per user for North West residents in 2015/16 was \$3,700 (\$2,750 for Ontario). North West LHIN was among the 3 LHINs with the highest mean health care cost per user.
- 6.5% of the patients were complex (4+ conditions), 5.8% for Ontario.
- The mean healthcare cost of a complex patient was \$26,900 compared to \$22,050 for Ontario. North West LHIN was among the 3 LHINs with the highest mean cost per complex patient.
- 6.9% of the patients were high cost user patients, 5.0% for Ontario. North West LHIN was among the 3 LHINs with the largest proportion of high cost user patients.
- The mean healthcare cost per high cost user was \$39,650 compared to \$37,700 for Ontario. North West LHIN was among the 3 LHINs with the highest cost per high cost user.
- The hospitalization rate (per 100,000 population) for cardiovascular disease in North West LHIN was 1262.3 compared to 916.9 for Ontario. North West LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for cerebrovascular disease in North West LHIN was 179.6 compared to 133.2 for Ontario. North West LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for chronic obstructive pulmonary disease in North West LHIN was 310.7 compared to 171.8 for Ontario. North West LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for diabetes in North West LHIN was 252.8 compared to 100.2 for Ontario. North West LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for hypertension in North West LHIN was 27.3 compared to 18 for Ontario. North West LHIN among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for lower respiratory disease in North West LHIN was 363.8 compared to 208.9 for Ontario. North West LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for respiratory disease in North West LHIN was 1084.8 compared to 599.7 for Ontario. North West LHIN was among the 3 LHINs with the highest rates.
- The hospitalization rate (per 100,000 population) for stroke in North West LHIN was 156.6 compared to 112.5 for Ontario. North West LHIN was among the 3 LHINs with the highest rates.

### Chronic Conditions, Complex Patients

Condition	North West	Ontario	Comment
<b>Self-reported prevalence (2015-16), rate per 100, age 12+</b>			
Arthritis	24.3	20.6	
Asthma	9.1	8.7	
Cancer	1.9 <sup>C</sup>	1.3	
Chronic Obstructive Pulmonary Disease (COPD) (age 35+)	5.4 <sup>C</sup>	4.0	
Diabetes	6.8	7.4	
High blood pressure	19.0	18.2	
Heart disease	4.4 <sup>C</sup>	4.6	
Suffer from effects of stroke	1.2 <sup>D</sup>	1.3	
Have a chronic condition	44.5	39.6	
Have multiple chronic conditions <sup>1</sup>	16.8	16.2	

C: 0.15<CV<=0.25 Marginal (Use with caution-high sampling variability)

D: 0.25<CV<=0.35 Marginal (Use with caution-high sampling variability)

1 - Of the selected conditions on this list

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>			
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	44.5	34.3	
Cardiovascular disease	1,262.3	916.9	
Cerebrovascular disease	179.6	133.2	
COPD	310.7	171.8	
Diabetes	252.8	100.2	
Hypertension	27.3	18.0	
Ischemic heart disease	348.9	314.8	
Lower respiratory disease	363.8	208.9	
Respiratory disease	1,084.8	599.7	
Stroke	156.6	112.5	

<b>Complex Patients and high cost users, 2015/16</b>			
Mean health care cost per user \$	\$ 3,700	\$ 3,700	
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$ 24,250	\$ 26,900	
# of patients that are complex	34,320	12,435	
% of all patients (health care users) that are complex	7.2%	6.5%	
<b>high cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$ 38,400	\$ 39,650	
# of patients that are high cost users	33,995	13,355	
% of patients that are high cost users	7.1%	6.9%	

#### DISTRICT OF KENORA SUB-REGION (1401)

- The prevalence rate (per 100) for the population with arthritis (14+) was 25 (Ontario - 17.3). **District of Kenora** sub-region's rate was **significantly higher** than Ontario.
- The prevalence rate (per 100) for the population with high blood pressure was 23.7 (Ontario - 18.1). **District of Kenora** sub-region's rate was **significantly higher** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 197.1 (Ontario - 133.2). **District of Kenora** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for diabetes was 268.9 (Ontario - 100.2). **District of Kenora** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 964.5 (Ontario - 599.7). **District of Kenora** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for stroke was 185.5 (Ontario - 112.5). **District of Kenora** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **District of Kenora** sub-region was \$3,100 (Ontario - \$2,750).
- 4.3% of patients from **District of Kenora** sub-region were complex (4+ conditions). (Ontario - 5.8%). It was among the 8 sub-regions with the lowest percentage of complex patients.
- The mean health care cost per complex patient in **District of Kenora** sub-region was \$28,450 (Ontario - \$22,050). It was among the 8 sub-regions with the highest mean cost per complex patient.
- 5.9% of patients from **District of Kenora** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **District of Kenora** sub-region was \$38,050 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	District of Kenora	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	25.0	17.3	11
Asthma	7.3	7.8	47
Diabetes	8.1	6.8	23
High blood pressure	23.7	18.1	6
Heart disease	7.5	5.0	8

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
<i>AGE STANDARDIZED rate per 100,000</i>			
Asthma	39.8	34.3	26
Cardiovascular disease	1,161.8	916.9	15
Cerebrovascular disease	197.1	133.2	5
COPD	275.9	171.8	14
Diabetes	268.9	100.2	4
Hypertension	17.9	18.0	35
Ischemic heart disease	372.4	314.8	32
Lower respiratory disease	326.6	208.9	13
Respiratory disease	964.5	599.7	8
Stroke	185.5	112.5	4

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$3,100	\$ 2,750	31.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$28,450	\$ 22,050	4
# of patients that are complex	1,545	680,115	
% of all patients (health care users) that are complex	4.3%	5.8%	69
high cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$38,050	\$ 37,700	27
# of patients that are high cost users	2,100	581,670	
% of patients that are high cost users	5.9%	5.0%	34

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

#### DISTRICT OF RAINY RIVER SUB-REGION (1402)

- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 1309.4 (Ontario - 916.9). [District of Rainy River](#) sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 198.9 (Ontario - 133.2). [District of Rainy River](#) sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for diabetes was 308.3 (Ontario - 100.2). [District of Rainy River](#) sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for hypertension was 39.8 (Ontario - 18). [District of Rainy River](#) sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 967.5 (Ontario - 599.7). [District of Rainy River](#) sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for stroke was 181.9 (Ontario - 112.5). [District of Rainy River](#) sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in [District of Rainy River](#) sub-region was \$3,900 (Ontario - \$2,750). It was among the 8 sub-regions with the highest mean cost per user.
- 5.3% of patients from [District of Rainy River](#) sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in [District of Rainy River](#) sub-region was \$29,400 (Ontario - \$22,050). It was among the 8 sub-regions with the highest mean cost per complex patient.
- 7.2% of patients from [District of Rainy River](#) sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the highest percentage of high cost users.
- The mean health care cost per high cost user in [District of Rainy River](#) sub-region was \$41,700 (Ontario - \$37,700). It was among the 8 sub-regions with the highest mean cost per high cost user.

## Chronic Conditions, Complex Patients

Condition	District of Rainy River	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	21.4	17.3	26
Asthma	10.9	7.8	7
Diabetes	7.4	6.8	33
High blood pressure	21.8	18.1	19
Heart disease	5.0	5.0	37

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
<i>AGE STANDARDIZED rate per 100,000</i>			
Asthma	45.6	34.3	17.5
Cardiovascular disease	1,309.4	916.9	8
Cerebrovascular disease	198.9	133.2	3
COPD	207.8	171.8	36
Diabetes	308.3	100.2	3
Hypertension	39.8	18.0	3
Ischemic heart disease	422.8	314.8	13
Lower respiratory disease	253.4	208.9	28
Respiratory disease	967.5	599.7	7
Stroke	181.9	112.5	5

Complex Patients and high cost users, 2015/16	Ontario	Ranking*	
Mean health care cost per user \$	\$3,900	\$ 2,750	4.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$29,400	\$ 22,050	3
# of patients that are complex	915	680,115	
% of all patients (health care users) that are complex	5.3%	5.8%	54
high cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$41,700	\$ 37,700	8
# of patients that are high cost users	1,235	581,670	
% of patients that are high cost users	7.2%	5.0%	7

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.



## DISTRICT OF THUNDER BAY SUB-REGION (1403)

- The prevalence rate (per 100) for the population with arthritis (14+) was 27.6 (Ontario - 17.3). [District of Thunder Bay](#) sub-region's rate was **significantly higher** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 1505.1 (Ontario - 916.9). [District of Thunder Bay](#) sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 249.9 (Ontario - 133.2). [District of Thunder Bay](#) sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 496.1 (Ontario - 171.8). [District of Thunder Bay](#) sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for diabetes was 196.4 (Ontario - 100.2). [District of Thunder Bay](#) sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 537.6 (Ontario - 208.9). [District of Thunder Bay](#) sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 1499.7 (Ontario - 599.7). [District of Thunder Bay](#) sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for stroke was 206.7 (Ontario - 112.5). [District of Thunder Bay](#) sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in [District of Thunder Bay](#) sub-region was \$3,900 (Ontario - \$2,750). It was among the 8 sub-regions with the highest mean cost per user.
- 6.7% of patients from [District of Thunder Bay](#) sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in [District of Thunder Bay](#) sub-region was \$27,250 (Ontario - \$22,050). It was among the 8 sub-regions with the highest mean cost per complex patient.
- 6.9% of patients from [District of Thunder Bay](#) sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in [District of Thunder Bay](#) sub-region was \$40,700 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	District of Thunder Bay	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	27.6	17.3	3
Asthma	9.5	7.8	19
Diabetes	11.6	6.8	1
High blood pressure	23.9	18.1	5
Heart disease	F	5.0	

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)	Ontario	Ranking*	
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	35.9	34.3	36
Cardiovascular disease	1,505.1	916.9	4
Cerebrovascular disease	249.9	133.2	2
COPD	496.1	171.8	2
Diabetes	196.4	100.2	6
Hypertension	-	18.0	0
Ischemic heart disease	384.9	314.8	25
Lower respiratory disease	537.6	208.9	2
Respiratory disease	1,499.7	599.7	3
Stroke	206.7	112.5	2

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$3,900	\$ 2,750	4.5
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$27,250	\$ 22,050	5
# of patients that are complex	1,000	680,115	
% of all patients (health care users) that are complex	6.7%	5.8%	17
high cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$40,700	\$ 37,700	9
# of patients that are high cost users	1,030	581,670	
% of patients that are high cost users	6.9%	5.0%	11

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

#### CITY OF THUNDER BAY SUB-REGION (1404)

- The prevalence rate (per 100) for the population with arthritis (14+) was 20.6 (Ontario - 17.3). **City of Thunder Bay** sub-region's rate was **significantly higher** than Ontario.
- The age standardized rate (per 100,000) for hospitalization for diabetes was 206.5 (Ontario - 100.2). **City of Thunder Bay** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for hypertension was 31.2 (Ontario - 18). **City of Thunder Bay** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 1032.7 (Ontario - 599.7). **City of Thunder Bay** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **City of Thunder Bay** sub-region was \$3,850 (Ontario - \$2,750). It was among the 8 sub-regions with the highest mean cost per user.
- 7.3% of patients from **City of Thunder Bay** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **City of Thunder Bay** sub-region was \$25,950 (Ontario - \$22,050).
- 7.3% of patients from **City of Thunder Bay** sub-region were high cost users (Top 5%). (Ontario - 5.0%). It was among the 8 sub-regions with the highest percentage of high cost users.
- The mean health care cost per high cost user in **City of Thunder Bay** sub-region was \$39,300 (Ontario - \$37,700).

## Chronic Conditions, Complex Patients

Condition	City of Thunder Bay	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	20.6	17.3	28
Asthma	8.1	7.8	34
Diabetes	8.0	6.8	25
High blood pressure	20.7	18.1	26
Heart disease	5.9	5.0	27

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

Acute Inpatient Hospital Separations (2016 calendar year)		Ontario	Ranking*
AGE STANDARDIZED rate per 100,000			
Asthma	49.1	34.3	14
Cardiovascular disease	1,205.8	916.9	13
Cerebrovascular disease	161.7	133.2	20
COPD	315.7	171.8	10
Diabetes	206.5	100.2	5
Hypertension	31.2	18.0	6
Ischemic heart disease	289.8	314.8	55
Lower respiratory disease	375.3	208.9	10
Respiratory disease	1,032.7	599.7	4
Stroke	135.0	112.5	20.5

Complex Patients and high cost users, 2015/16		Ontario	Ranking*
Mean health care cost per user \$	\$3,850	\$ 2,750	6
Complex Patients (4+ conditions)			
Mean health care cost per complex patient \$	\$25,950	\$ 22,050	12
# of patients that are complex	8,185	680,115	
% of all patients (health care users) that are complex	7.3%	5.8%	9
high cost users (Top 5%) #			
Mean health care cost per high cost user \$	\$39,300	\$ 37,700	20
# of patients that are high cost users	8,210	581,670	
% of patients that are high cost users	7.3%	5.0%	5

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## NORTHERN SUB-REGION (1405)

- The age standardized rate (per 100,000) for hospitalization for cardiovascular disease was 2062.3 (Ontario - 916.9). **Northern** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for cerebrovascular disease was 192.1 (Ontario - 133.2). **Northern** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for chronic obstructive pulmonary disease was 422.9 (Ontario - 171.8). **Northern** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for diabetes was 617.2 (Ontario - 100.2). **Northern** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for ischemic heart disease was 822.1 (Ontario - 314.8). **Northern** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for lower respiratory disease was 461.9 (Ontario - 208.9). **Northern** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for respiratory disease was 1775.1 (Ontario - 599.7). **Northern** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The age standardized rate (per 100,000) for hospitalization for stroke was 192.1 (Ontario - 112.5). **Northern** sub-region was among the 8 sub-regions with the highest hospitalization rates.
- The mean health care cost per user in **Northern** sub-region was \$3,650 (Ontario - \$2,750).
- 6.1% of patients from **Northern** sub-region were complex (4+ conditions). (Ontario - 5.8%).
- The mean health care cost per complex patient in **Northern** sub-region was \$30,250 (Ontario - \$22,050). It was among the 8 sub-regions with the highest mean cost per complex patient.
- 6.0% of patients from **Northern** sub-region were high cost users (Top 5%). (Ontario - 5.0%).
- The mean health care cost per high cost user in **Northern** sub-region was \$43,150 (Ontario - \$37,700). It was among the 8 sub-regions with the highest mean cost per high cost user.

## Chronic Conditions, Complex Patients

Condition	Northern	Ontario	Ranking out of 76 sub-regions*
<b>Self-reported prevalence (2011-2014), rate per 100, age 12+</b>			
Arthritis (age 14+)	27.4	17.3	4
Asthma	F	7.8	
Diabetes	F	6.8	
High blood pressure	26.9	18.1	1
Heart disease	F	5.0	

Estimates with high sampling variability (CV between 16.6 -33.3) are highlighted and must be used with caution.

F - Estimates with CVs greater than 33.3% are too unreliable to be published and have been suppressed due to extreme sampling variability (indicated by "F")

LHIN sub-regions with all cells highlighted in dark grey are suppressed due to small sample size or data quality issues

<b>Acute Inpatient Hospital Separations (2016 calendar year)</b>		Ontario	Ranking*
<b>AGE STANDARDIZED rate per 100,000</b>			
Asthma	38.9	34.3	29.5
Cardiovascular disease	2,062.3	916.9	2
Cerebrovascular disease	192.1	133.2	6
COPD	422.9	171.8	3
Diabetes	617.2	100.2	2
Hypertension	-	18.0	0
Ischemic heart disease	822.1	314.8	2
Lower respiratory disease	461.9	208.9	5
Respiratory disease	1,775.1	599.7	2
Stroke	192.1	112.5	3

<b>Complex Patients and high cost users, 2015/16</b>		Ontario	Ranking*
Mean health care cost per user \$	\$3,650	\$ 2,750	9
<b>Complex Patients (4+ conditions)</b>			
Mean health care cost per complex patient \$	\$30,250	\$ 22,050	2
# of patients that are complex	790	680,115	
% of all patients (health care users) that are complex	6.1%	5.8%	40
<b>high cost users (Top 5%) #</b>			
Mean health care cost per high cost user \$	\$43,150	\$ 37,700	5
# of patients that are high cost users	780	581,670	
% of patients that are high cost users	6.0%	5.0%	31

\* These ranking represent an ordering of sub-regions, based on the prevalence shown in the table. Note that the rank of '1' represents the highest prevalence, largest proportion of patients or highest mean cost per patient.

## Human Resources

### Physicians

- In 2016, there were approximately 524 physicians in North West LHIN.
  - This represents the equivalent of approximately 222 physicians for every 100,000 persons in North West LHIN.
  - The number of physicians in North West LHIN increased by close to 8% between 2013 and 2016 with higher growth occurring among family physicians than specialists.
- Between 2013 and 2016, there was an increase of approximately 43 family physicians in North West LHIN.
  - The majority of the increase in North West LHIN occurred with 28 additional family physicians between 30-64 years of age.
- In 2016, approximately 9% of family physicians in North West LHIN were at or beyond the age of retirement (65 years of age or older).

### Nurses

- In 2016, there were 3,841 total nurses in North West LHIN.
- The total number of nurses increased slightly by 1.3% in North West LHIN between 2013 and 2016.
  - While the number of Registered Nurses in North West LHIN between 2013 and 2016 decreased, there were substantial increases in the number of Nurse Practitioners (26% increase) and Registered Practical Nurses (3% increase) during the same time period.
- In 2016, there were approximately 1633 nurses for every 100,000 residents of North West LHIN.

### Other Allied Health Professionals

- Between 2013 and 2016, the greatest growth in the number of allied health professionals in North West LHIN was among Midwives (an increase of 4 or approximately 29%) and Pharmacists (an increase of 25 or about 12%).
- There was also notable growth in terms of rates, if not raw numbers, in Audiologists (2 additional – for 33% growth) Occupational Therapists (11 additional – 11% growth), Optometrists (4 additional – 15% growth), Psychologists (6 additional – 14% growth) in North West LHIN between 2013 and 2016.

North West LHIN					
Physicians	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Total Family Medicine Physicians</b>					
Number of family medicine physicians	288	313	309	331	14.9%
Rate per 100,000 population	121.9	132.4	131.2	140.8	15.5%
<b>Total Specialists</b>					
Number of specialists	195	203	194	193	-1.0%
Rate per 100,000 population	82.5	85.9	82.4	82.1	-0.5%
<b>Total Physicians</b>					
Number of total physicians	483	516	503	524	8.5%
Rate per 100,000 population	204.4	218.2	213.6	222.8	9.0%

Family Physicians, by age group - count					
Age <30	6			11	83.3%
Age 30-64	263			291	10.6%
Age 65-74	18			27	50.0%
Age 75+	1			2	100.0%
Grand Total	288			331	14.9%
Age 65+	19			29	52.6%

Family Physicians, by age group – percent					
Age <30	2.1%			3.3%	59.5%
Age 30-64	91.3%			87.9%	-3.7%
Age 65-74	6.3%			8.2%	30.5%
Age 75+	0.3%			0.6%	74.0%
Age 65+	6.6%			8.8%	32.8%

North West LHIN					
Nurses	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Registered Nurses</b>					
Number of RNs	2,494	2,548	2,513	2,485	-0.4%
Rate per 100,000 population	1052.9	1077.7	1066.9	1056.8	0.4%
<b>Registered Practical Nurses</b>					
Number of RPN nurses	1,195	1,199	1,230	1,225	2.5%
Rate per 100,000 population	504.5	507.1	522.2	520.9	3.3%
<b>Nurse Practitioners</b>					
Number of NP nurses	104	103	119	131	26.0%
Rate per 100,000 population	43.9	43.6	50.5	55.7	26.9%
<b>Total Nurses</b>					
Total Nurse - Number of nurses	3,793	3,850	3,862	3,841	1.3%
Total Nurse - Rate per 100,000 population	1,601.3	1,628.3	1,639.6	1,633.4	2.0%



North West LHIN					
Other Regulated Health Professionals	2013	2014	2015	2016	% Change from 2013 to 2016
<b>Audiologists</b>					
Audiologist - Number	6	5	7	8	33.3%
Audiologist - Rate per 100,000 population	2.5	2.1	3.0	3.4	34.3%
<b>Midwives</b>					
Midwife - Number	14	17	18	18	28.6%
Midwife - Rate per 100,000 population	5.9	7.2	7.6	7.7	29.5%
<b>Occupational Therapists</b>					
Occupational Therapist - Number	99	95	99	110	11.1%
Occupational Therapist - Rate per 100,000 population	41.8	40.2	42.0	46.8	11.9%
<b>Opticians</b>					
Optician - Number	23	23	24	24	4.3%
Optician - Rate per 100,000 population	9.7	9.7	10.2	10.2	5.1%
<b>Optometrists</b>					
Optometrist - Number	26	26	27	30	15.4%
Optometrist - Rate per 100,000 population	11.0	11.0	11.5	12.8	16.2%
<b>Pharmacists</b>					
Pharmacist - Number	213	228	245	238	11.7%
Pharmacist - Rate per 100,000 population	89.9	96.4	104.0	101.2	12.6%
<b>Psychologists</b>					
Psychologist - Number	44	51	51	50	13.6%
Psychologist - Rate per 100,000 population	18.6	21.6	21.7	21.3	14.5%
<b>Speech-Language Pathologists</b>					
Speech-Language Pathologist - Number	64	66	66	63	-1.6%
Speech-Language Pathologist - Rate per 100,000 population	27.0	27.9	28.0	26.8	-0.8%

## Primary Care

### Primary Care Enrolment

- Almost 162,000 (n=161,618) North West LHIN residents were enrolled with a PEM and 82,555 residents were affiliated with FFS physicians (i.e. not enrolled).
- One-fifth of LHIN residents (20%) were affiliated with FHT physicians within a FHO in 2016/2017, and one-third (34%) access FFS physicians.
- There are 23 practices with 216 primary care physicians in the North West LHIN. There are 12 RNPGA practices with 37 physicians, and almost half (n=102) of physicians are part of a FHT.

### Selected Measures from the Health Care Experience Survey

#### Self-reported access to, and satisfaction with, primary care in 2017

	Ontario (2017)	LHIN (2017)	Range Across NW sub-regions (2014-2017)
Percentage who are satisfied with health care in their community	87%	80% <sup>L</sup>	74% to 84%
Percentage with primary care providers (attached patients)	94%	92%	80% to 90%
Percentage who saw their primary care provider within the same day/next day when sick	40%	23% <sup>L</sup>	20% to 32%*
Percentage who went to ED for something that could have been treated by primary care provider	42%	53% <sup>H</sup>	44% to 76%
Percentage who found it difficult to access care after-hours without going to an emergency department	53%	72% <sup>H</sup>	60% to 85%
Percentage who went to walk-in clinic in past 12 months	30%	19% <sup>L</sup>	10% to 28%
Percentage who went to a walk in clinic for something that could have been treated by provider if they were available	92%	98% <sup>H</sup>	89% to 94%*

*H=significantly higher than the province*

*L=significantly lower than the province*

*\*Some sub-regions not reported*

- 80% of North West residents were satisfied with health care in their community. This is **significantly lower** than the provincial value (87%).
  - Three sub-regions were **significantly lower** than the provincial proportion, with [District of Rainy River](#) (74%), [District of Kenora](#) (77%), and [City of Thunder Bay](#) (78%).
- In 2017, 92% of North West LHIN adults (aged 16 years and older) had a primary care provider.
  - All sub-regions but [City of Thunder Bay](#) reported **significantly lower** attachment rates compared to the province.
- In 2017, 23% of North West LHIN residents were able to see their primary care provider within the same day/next day when they were sick, **significantly lower** than the provincial value (40%).
  - Three sub-regions were **significantly lower** than the provincial proportion, with [District of Rainy River](#) (32%), [District of Kenora](#) (20%), and [City of Thunder Bay](#) (22%).
- Fifty-three (53%) percent of North West LHIN went to the ED for something that could have been treated by their primary care provider, **significantly higher** than the provincial value (42%).

- District of Kenora (72%), District of Rainy River (72%), and Northern sub-region reported **significantly higher** proportions than the province.
- Almost three-quarters (72%) of North West LHIN residents found it difficult to access after-hours care without going to the ED, **significantly higher** than the provincial value (53%).
  - All sub-regions reported percentages that were **significantly higher** than the provincial proportion, with District of Kenora reporting the highest at 85% and City of Thunder Bay reporting the lowest at 60%.
- In the North West LHIN, 19% of adults reported attending walk-in clinics in the previous 12 months, **significantly lower** than the provincial value (30%).
  - There was substantial variation across the sub-regions, such that District of Kenora (9.6%), District of Rainy River (12%), and District of Thunder Bay (20%) sub-regions were **significantly lower** than the provincial proportion.
- 98% felt that their walk-in visit could have been addressed by a primary care provider if one had been available, which is the highest proportion among the 14 LHINs, and **significantly higher** than the provincial value (92%).

## Community Care

- North West LHIN ranks highest in CMH&A\_Community Visits-Face to Face Visits per 1,000 population with 853 (province is 232).
- North West LHIN ranks highest in CMH&A\_Community Visits- Non Face to Face Visits per 1,000 population with 303 (province is 126).
- North West LHIN ranks highest in CMH&A\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population with 217 (province is 55).
- North West LHIN ranks highest in CMH&A\_Community Group Participants Patient Attendances per 1,000 population with 153 (province is 65).
- North West LHIN ranks second highest in CMH&A\_Resident DaysResident Days per 1,000 population with 419 (province is 271).
- North West LHIN ranks highest in CSS\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population with 136 (province is 28).
- North West LHIN ranks highest in CSS\_Community Group Participants Patient Attendances per 1,000 population with 75 (province is 33).
- North West LHIN ranks highest in CSS\_Resident Days (Assisted Living, Overnight stay care)Resident Days per 1,000 population with 1,038 (province is 366).
- North West LHIN ranks highest in CSS\_Community Service - Not Uniquely Identified Service Recipient Interaction Visits per 1,000 population 75+ with 1,820 (province is 397).
- North West LHIN ranks highest in CSS\_Community Group Participants Patient Attendances per 1,000 population 75+ with 1,007 (province is 465).
- North West LHIN ranks highest in CSS\_Resident Days (Assisted Living, Overnight stay care)Resident Days per 1,000 population 75+ with 13,914 (province is 5,110).

## Mental Health Services

### Wait Time for Community Services

- Support within housing had the longest median wait times among the community mental health (MH) services in North West LHIN (92 days) in 2017/18, 17 days longer than the province's median wait for that service.
- Among the substance abuse (SA) services provided in North West LHIN, case management/supportive counselling and services had the longest median wait times (90 days), 56 days longer than the province's median wait in 2017/18.
- For problem gambling, residential treatment (50 days) and day/evening care services (49 days) had the longest median wait time, 20 and 36 days longer than the province's median wait times.

### Mental Health and Substance Abuse Emergency Department Visits

- In 2016/17, there were 11,315 unscheduled ED visits for North West residents where the main problem was a MH/SA condition. In total there were 15,053 visits with a MH/SA condition in any of the diagnostic fields.
- Between 2013/14 and 2016/17, there was 27.6% growth in visits with a MH/SA main problem diagnosis (higher than the province's value of 20.9%) and 31.9% growth in visits with a MH/SA condition in any diagnostic field (higher than the province's value of 21.1%).
- The MH/SA ED visit rate (main diagnosis) for North West LHIN residents was 48.1 per 1,000 population, the **highest** rate in the province. Between 2013/14 and 2016/17 North West LHIN residents had the second highest growth in visit rate (main diagnosis) in the province at 28.2%.
  - By sub-region, **Northern** (91.7), **District of Thunder Bay** (51.1), **District of Kenora** (48.5), **District of Rainy River** (47.0) and **City of Thunder Bay** (40.5) had the **highest**, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 7<sup>th</sup> highest ED visit rates per 1,000 where the main problem was a MH/SA condition.
  - By sub-region, **Northern** (124.0), **District of Thunder Bay** (97.0), **District of Kenora** (64.2), **District of Rainy River** (56.9) and **City of Thunder Bay** (50.5) had the **highest**, 3<sup>rd</sup>, 4<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> highest ED visit rates per 1,000 where a MH/SA condition was in any of the diagnostic fields.
- Visits with a MH/SA main problem diagnosis accounted for 5.3% of all ED visits for North West LHIN residents.
- In 2016/17, there were 111 ED visits of North West residents for opioid overdose. Of those, 48.6% were accidental.
- The crude rate of ED visits for opioid overdose in FY2016/17 for North West residents was 4.7, the third highest rate per 10,000 population in the province. Between 2013/14 and 2016/17, there was a 9.6% growth in the visit rate for opioid overdose for all North West residents, lower than the province (48.4%).

## Unscheduled emergency department utilization for mental health and substance abuse conditions, North West LHIN and Ontario residents, 2016/17

Measure	North West LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient<sup>†</sup></b>				
Main problem visits	11,315	268,514	27.6%	
% of total ED visits	5.3%	4.3%	-	
Any problem visits	15,053	338,260	31.9%	
% of total ED visits	7.1%	5.5%	-	
Main problem, visits per 1,000	48.1	19.2	28.2%	<i>Highest</i>
Any problem, visits per 1,000	64.0	17.1%	32.5%	<i>Highest</i>
ED visits for opioid overdose	111	4,831	8.8%	
% of visits that were accidental	48.6%	50.1%	-	
Crude rate per 10,000 population	4.7	3.5	9.6%	

<sup>†</sup>LHIN of patient results for Ontario exclude out-of-province residents

<sup>‡</sup>Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

### Utilization of ED and Adult Designated Mental Health Beds by LHIN of Facility

- In 2016/17, there were 11,415 unscheduled ED visits in North West LHIN hospitals, where the main problem was a MH/SA condition. 0.7% of these visits were made by homeless individuals, the **lowest** proportion in the province.
- There were 1,320 admissions and 1,422 active cases who received treatment in adult designated MH units in North West LHIN hospitals. There were 1,334 discharges from these units with the total days of discharge patients equal to 45,014 days. The mean length of stay in North West LHIN MH units was 33.7 days, the third highest in the province. Residents from outside of the LHIN accounted for 4.1% of the active cases treated in North West LHIN.
- Between 2013/14 and 2016/17, active cases, admissions, discharges and total days of discharged patients increased in North West LHIN hospitals by 7.7%, 9.6%, 10.0% and 17.0%, respectively.
- Short stay (34.4%) and schizophrenia and psychotic disorders (23.2%) accounted for the largest proportions of active cases in North West LHIN hospitals in 2016/17. Compared with the provincial values, North West had larger proportions of active cases for short stay, substance use and other disorders.
- There were 1,421 active cases, 1,314 admissions and 1,323 discharges for North West LHIN residents from Ontario adult designated MH units. Mean length of stay for North West LHIN residents was the **highest** in the province at 34.9 days. 4.1% of North West LHIN resident active cases received treatment in hospitals outside the LHIN, the **lowest** proportion in the province. Compared with the provincial rates, North West LHIN residents had the second highest rates of active cases, admissions, and discharges per 100,000 population age 15+.
  - By sub-region, **District of Rainy River** (9.8 days) and **District of Kenora** (11.2 days) had the **shortest** and 3<sup>rd</sup> shortest mean length of stays among all 76 sub-regions. **Northern** (83.8 days) and **City of Thunder Bay** (39.4 days) had the 2<sup>nd</sup> and 6<sup>th</sup> longest mean length of stays.
  - **City of Thunder Bay** had the 6<sup>th</sup>, 6<sup>th</sup> and 5<sup>th</sup> highest crude rates of active cases (870.7), admissions (801.7) and discharges (812.5) per 100,000 population.
- Active cases, admissions, discharges, total days and the associated rates increased for North West LHIN residents between 2013/14 and 2016/17.

### Adult designated mental health unit utilization, North West LHIN hospitals and residents, 2016/17

Measure	North West LHIN	Ontario	% change 2013/14 – 2016/17	Comments <sup>‡</sup>
<b>LHIN of patient</b>				
Active cases	1,421	64,523	7.3%	
Admissions	1,314	60,197	9.0%	
Discharges	1,323	60,607	9.2%	
Total Days	46,236	1,504,690	15.8%	
Mean Length of Stay	34.9	24.8	-	<i>Highest</i>
% Outflow Active Cases	4.1%	-	-	<i>Lowest</i>
Active Cases per 100,000 (age 15+)	725.8	548.5	7.7%	<i>2<sup>nd</sup> highest</i>
Admission per 100,000 (age 15+)	671.1	511.7	9.4%	<i>2<sup>nd</sup> highest</i>
Discharges per 100,000 (age 15+)	675.7	515.2	9.7%	<i>2<sup>nd</sup> highest</i>
<b>SCIPP Categories - % of total active cases</b>				
Short Stay	33.6%	27.4%	-	
Schizophrenia and other psychotic disorders	22.5%	27.0%	-	
Neurocognitive disorders	2.4%	3.1%	-	
Bipolar and depressive disorders	21.1%	29.6%	-	
Personality disorders	3.1%	3.0%	-	
Feeding and eating disorders	0.6%	0.4%	-	
Substance Use disorders	9.7%	5.5%	-	
Other disorders	7.0%	4.0%	-	
<b>LHIN of hospital</b>				
Active cases	1,422	64,738	7.7%	
Admissions	1,320	60,383	9.6%	
Discharges	1,334	60,795	10.0%	
Total Days (discharged patients only)	45,014	1,512,754	17.0%	
Mean Length of Stay	33.7	24.9	-	<i>3<sup>rd</sup> highest</i>
% Inflow Active Cases	4.1%	-	-	<i>Lowest</i>

‡Ranking refers to rate of LHIN, not Ontario or % change 2013/14 -2016/17.

## Surgery & Diagnostic Imaging

### Day Surgery and Cardiac Catheterization Utilization

#### Day Surgery and Cardiac Catheterization Visits

- In 2016/17, there were 27,727 day surgery and ambulatory cardiac catheterization visits to North West LHIN hospitals. Residents from outside the LHIN accounted for 0.7% of the visits. This was the lowest rate of inflow for all LHINs.
- Between 2013/14 and 2016/17, there was an increase of 1.6% in North West LHIN hospital's day surgery and cardiac catheterization visits.
- There were 28,401 day surgery and ambulatory cardiac catheterization visits for North West LHIN residents. There was an increase in both the number and rate of visits between 2013/14 and 2016/17.
- In 2016/17, 3.0% of these visits occurred in hospitals outside the LHIN. This is the lowest rate of outflow among all LHINs.
- The following sub-regions had among the eight lowest outflow rates to other LHINs for all Ontario sub-regions:
  - District of Kenora had the 4<sup>th</sup> lowest outflow rate.
  - City of Thunder Bay had the 7<sup>th</sup> lowest outflow rate.
  - Northern had the 3<sup>rd</sup> lowest outflow rate.
- North West LHIN residents had 120.8 day surgery and cardiac catheterization visits per 1,000 population. This rate was higher than the provincial rate of 93.9.

#### Day surgery and ambulatory cardiac catheterization visits, North East LHIN and Ontario, 2016/17

Measure	North East LHIN	Comments	Ontario†	LHIN % change 2013-14 - 2016/17	Range within LHINs	Range within NW sub-regions
<b>LHIN of hospital</b>						
Visits	27,727		1,322,943	1.6%	27,727 - 158,077	
% Inflow visits	0.7%	Lowest			0.7% - 58.4%	
<b>LHIN of patient</b>						
Total population	235,148		13,982,984	-0.7%	235,148 - 1,893,948	
Visits	28,401		1,313,103	1.4%	28,401 - 157,644	1,879 - 17,797
% Outflow visits	3.0%	Lowest			3.0% - 39.0%	1.6% - 7.2%
Visits per 1,000 population	120.8		93.9	1.9%	66.8 - 151.0	87.1 - 137.1
- age 0-17 years	36.1	2 <sup>nd</sup> highest	22.2		13.9 - 38.4	
- age 18-44 years	67.0	2 <sup>nd</sup> highest	46.5		34.8 - 85.5	
- age 45-64 years	160.5		125.3		93.9 - 183.0	
- age 65-79 years	273.6		239.9		176.5 - 318.4	
- age 80+ years	197.4		202.7		138.5 - 260.4	

†LHIN of patient results for Ontario exclude out-of-province residents

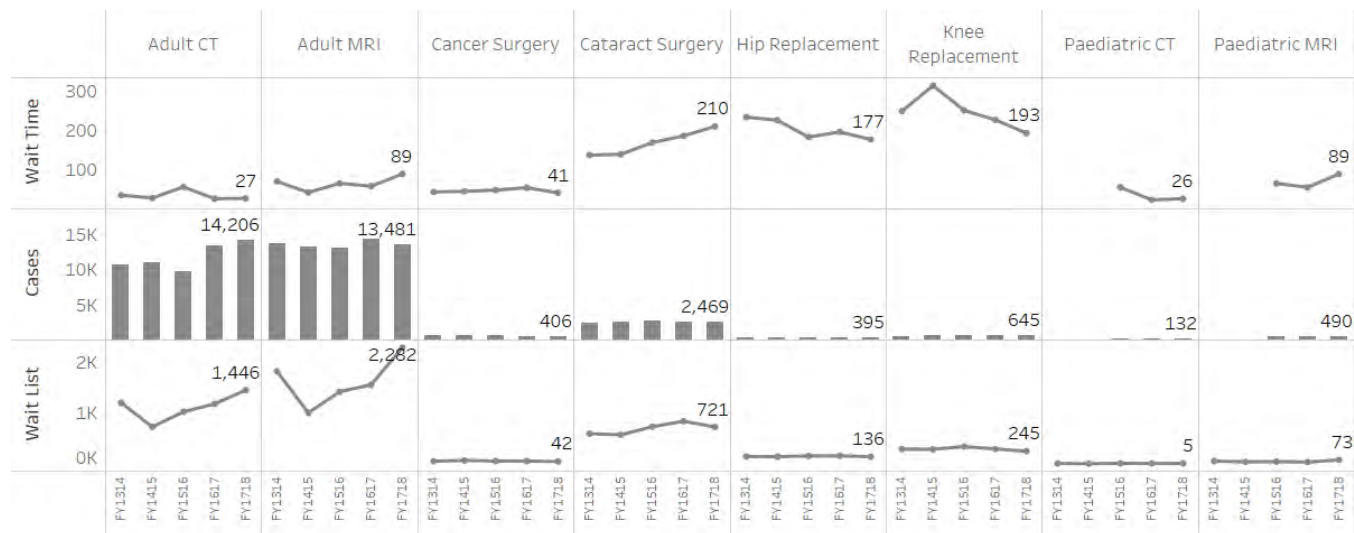


## Surgical & Diagnostic Imaging Wait Times

### North West LHIN Priority Procedures:

#### Wait 2 90th Percentile Wait Time (Days), Completed Cases and Wait List Queue Trends

##### LHIN of Treatment

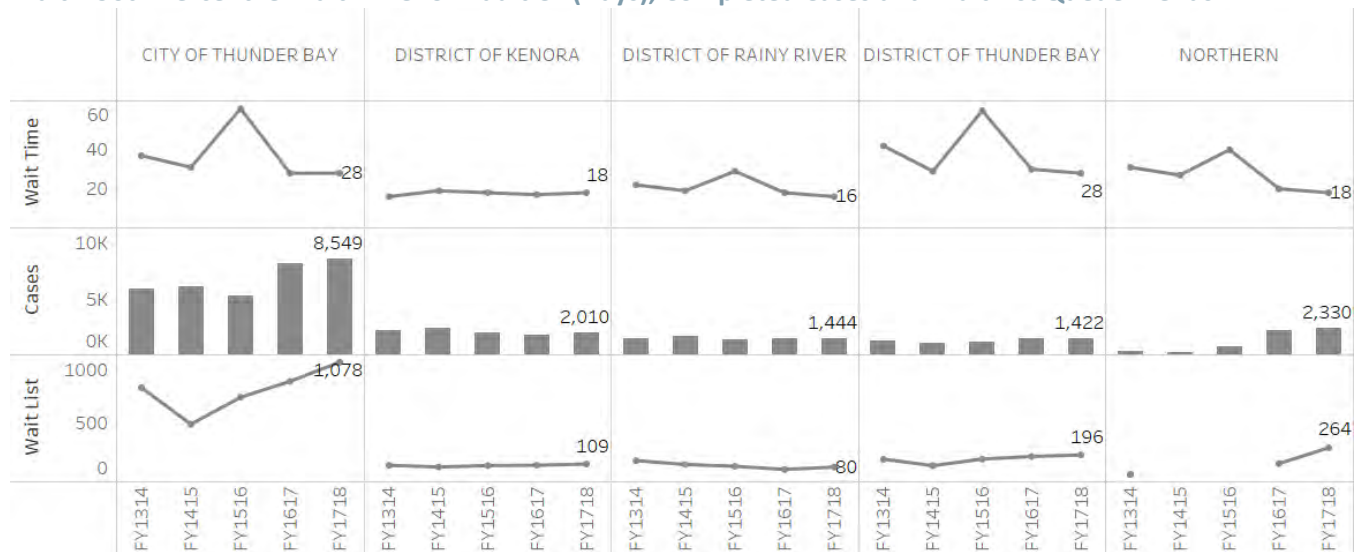


## Adult CT

- There were 14,206 adult CT scans completed in FY 2017-18; 895 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 27 days, 1 day longer than the previous fiscal.
- In 2017/18, hospitals in the North West LHIN had the 3<sup>rd</sup> shortest wait time for adult CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 1,446 patients; 271 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Adult CT (Days), Completed Cases and Wait List Queue Trends



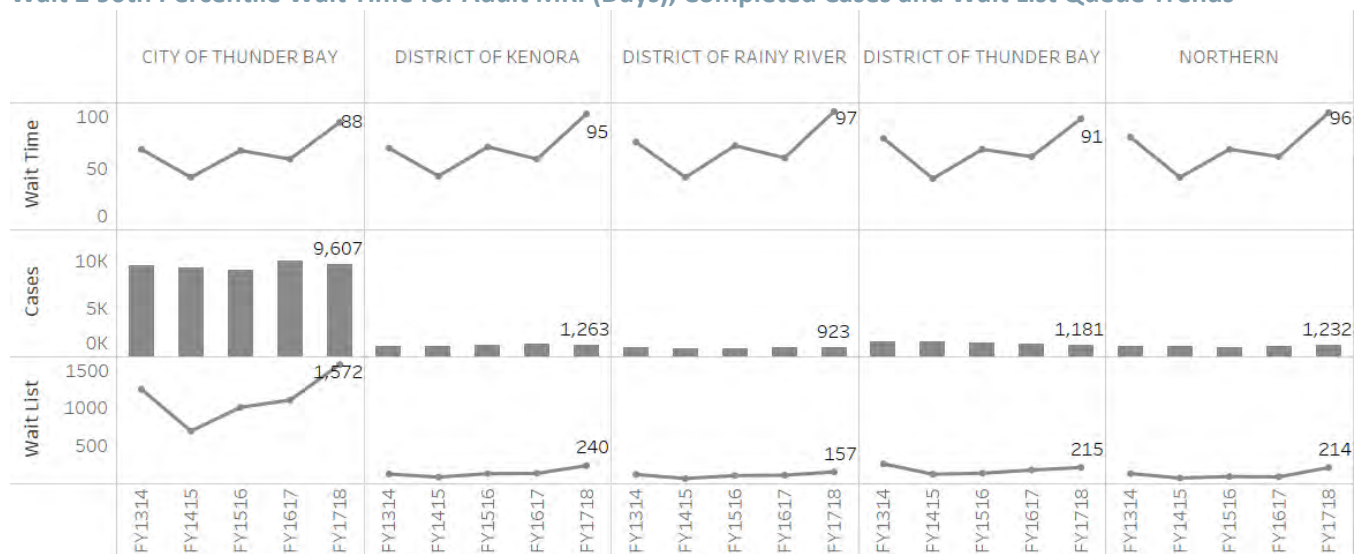
- North West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 16 days to 28 days.

## Adult MRI

- There were 13,481 adult MRI scans completed in FY 2017-18; 773 fewer scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 89 days, 31 days longer than the previous fiscal.
- In 2017/18, hospitals in the North West LHIN had the 7<sup>th</sup> shortest wait time for adult MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 2,282 patients; 732 more queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Adult MRI (Days), Completed Cases and Wait List Queue Trends



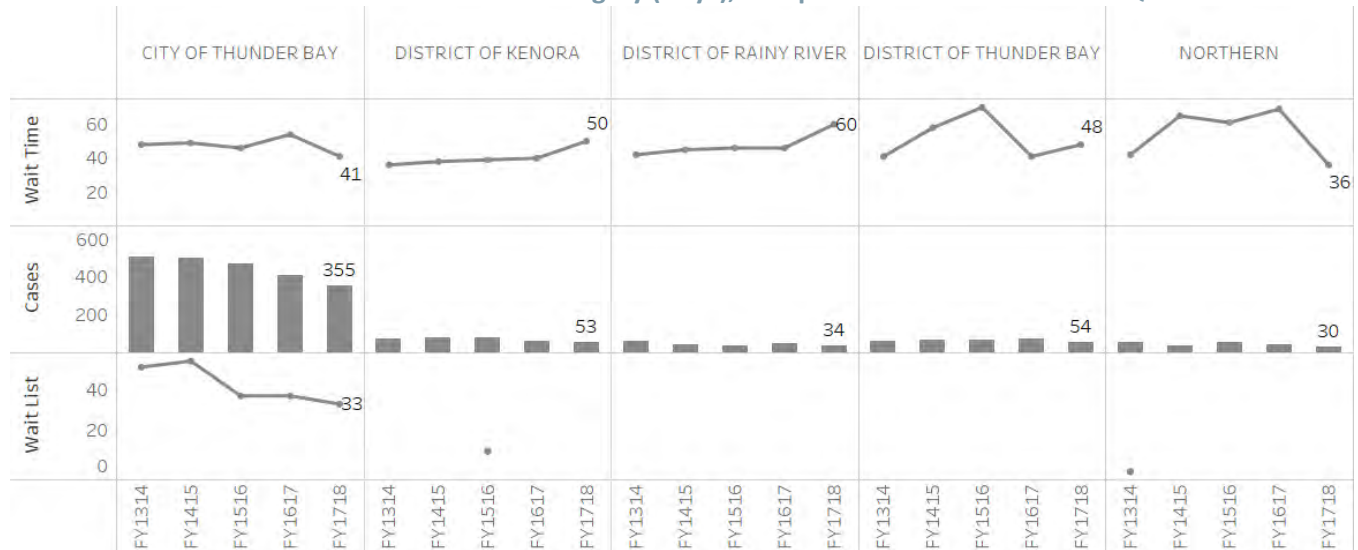
- North West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 88 days to 97 days.

### Cancer Surgery

- There were 406 cancer surgeries completed in FY 2017-18; 92 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 41 days, 13 days shorter than the previous fiscal.
- In 2017/18, hospitals in the North West LHIN had the 2<sup>nd</sup> shortest wait time for cancer surgery (tied with three other LHINs).
- The wait list queue at the start of FY 2017-18 was 42 patients; 8 fewer queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90th Percentile Wait Time for Cancer Surgery (Days), Completed Cases and Wait List Queue Trends



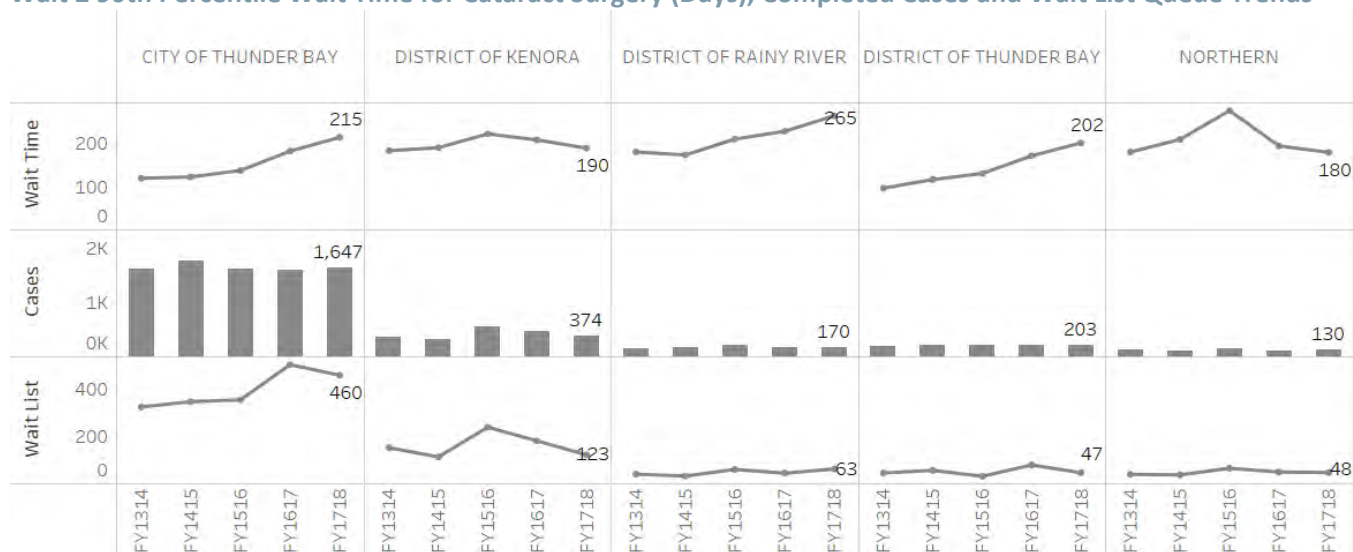
- North West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 36 days to 60 days.

### Cataract Surgery

- There were 2,469 cataract surgeries completed in FY 2017-18; 33 fewer surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 210 days, 24 days longer than the previous fiscal.
- In 2017/18, hospitals in the North West LHIN had the 6<sup>th</sup> shortest wait time for cataract surgery.
- The wait list queue at the start of FY 2017-18 was 721 patients; 113 fewer queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90th Percentile Wait Time for Cataract Surgery (Days), Completed Cases and Wait List Queue Trends



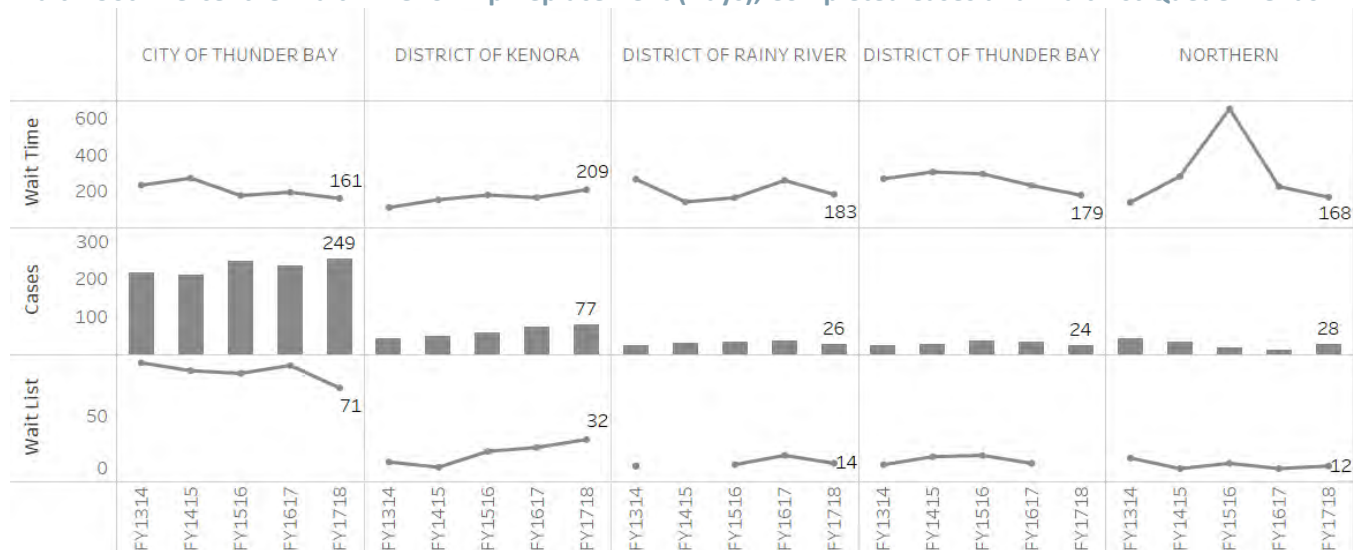
- North West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 180 days to 265 days.

## Hip Replacement

- There were 395 hip replacement surgeries completed in FY 2017-18; 8 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 177 days, 19 days shorter than the previous fiscal.
- In 2017/18, hospitals in the North West LHIN had the 4<sup>th</sup> shortest wait time for cancer surgery.
- The wait list queue at the start of FY 2017-18 was 136 patients; 19 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Hip Replacement (Days), Completed Cases and Wait List Queue Trends



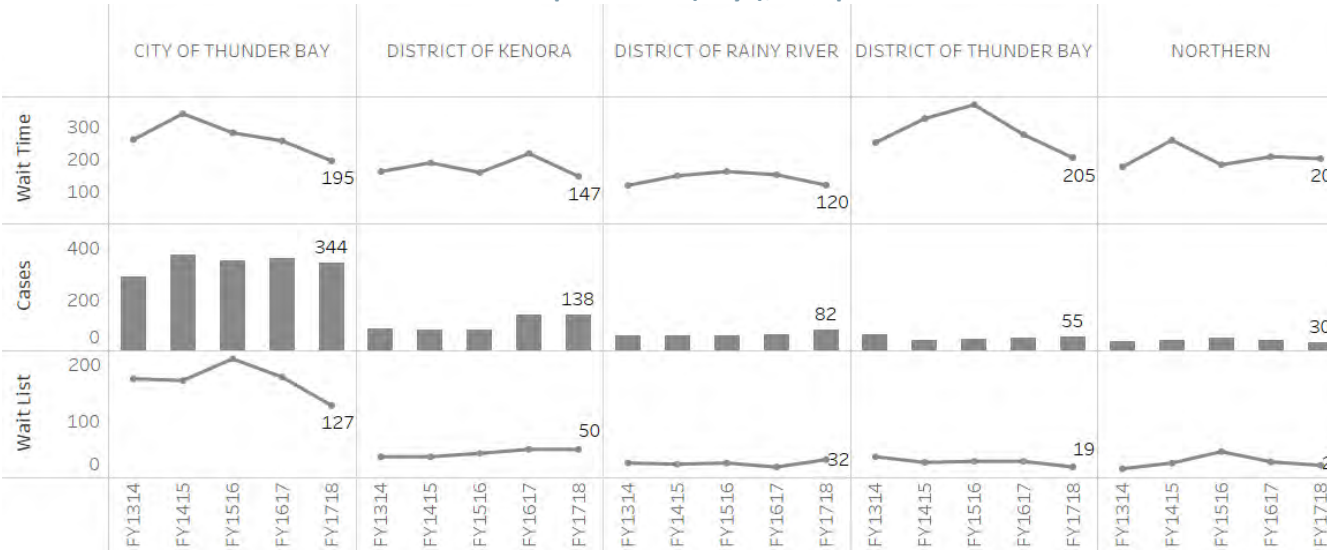
- North West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 161 days to 209 days.

# Knee Replacement

- There were 645 knee replacement surgeries completed in FY 2017-18; 4 more surgeries completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those surgeries completed in FY 2017-18 was 193 days, 34 days shorter than the previous fiscal.
- In 2017/18, hospitals in the North West LHIN had the 4<sup>th</sup> shortest wait time for cancer surgery.
- The wait list queue at the start of FY 2017-18 was 245 patients; 44 fewer queued compared to the previous fiscal.

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Knee Replacement (Days), Completed Cases and Wait List Queue Trends



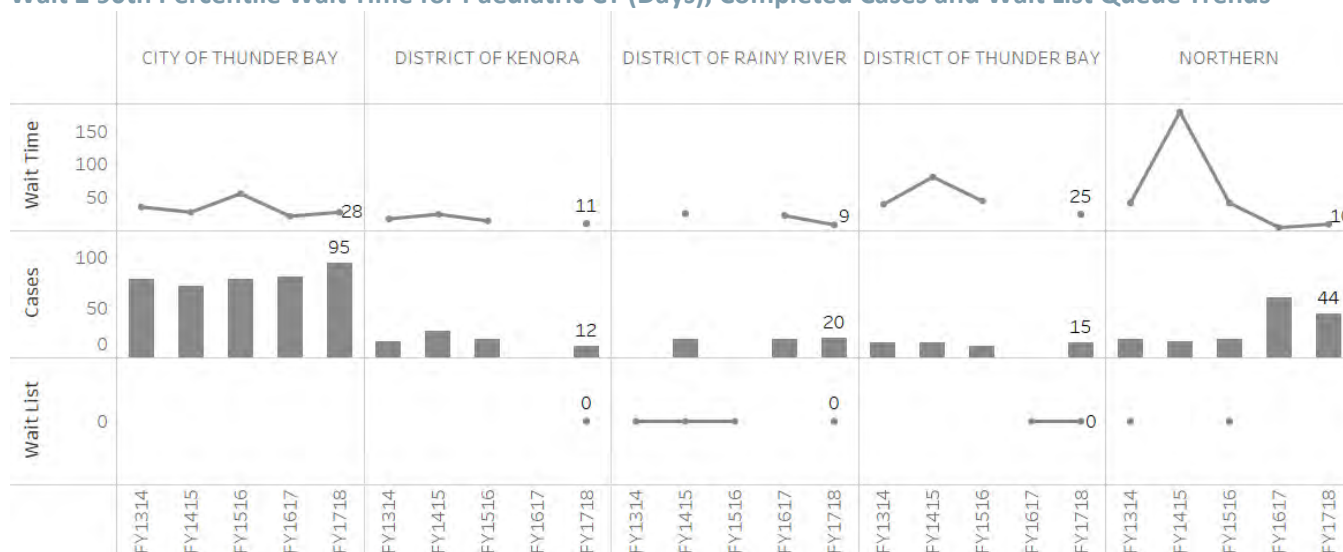
- North West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 120 days to 205 days.
- **District of Rainy River** sub-region wait time of 120 days was the **shortest** across the province for this period.

### Paediatric CT

- There were 132 paediatric CT scans completed in FY 2017-18; 26 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 26 days, 3 days longer than the previous fiscal.
- In 2017/18, hospitals in the North West LHIN had the 5<sup>th</sup> shortest wait time for paediatric CT [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 5 patients; 2 more queued compared to the previous fiscal.

### Sub-Region of Patient Residence Comparison:

#### Wait 2 90th Percentile Wait Time for Paediatric CT (Days), Completed Cases and Wait List Queue Trends



- North West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 9 days to 28 days.

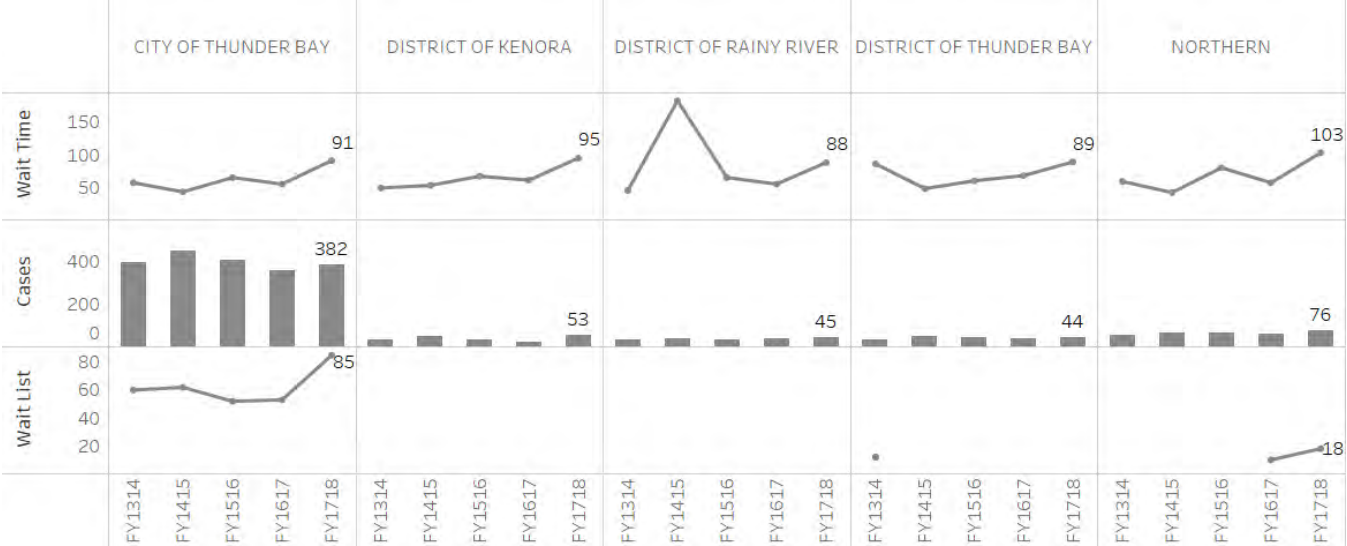


# Paediatric MRI

- There were 490 paediatric MRI scans completed in FY 2017-18; 27 more scans completed compared to the previous fiscal year.
- The 90<sup>th</sup> percentile Wait 2 wait time for those scans completed in FY 2017-18 was 89 days, 34 days longer than the previous fiscal.
- In 2017/18, hospitals in the North West LHIN had the 6<sup>th</sup> longest wait time for paediatric MRI [of only 13 reporting].
- The wait list queue at the start of FY 2017-18 was 73 patients; 42 more queued compared to the previous fiscal).

## Sub-Region of Patient Residence Comparison:

### Wait 2 90th Percentile Wait Time for Paediatric MRI (Days), Completed Cases and Wait List Queue Trends



- North West LHIN sub-region (*of Patient Residence*) variation in FY 2017-18: 88 days to 103 days.

## Oncology and Dialysis

### Ambulatory Oncology Utilization

- In 2016/17, there were 23,597 ambulatory oncology visits to hospital(s) in North West LHIN.
- Since 2014/15, visits in Ontario have increased by 9%. The number of visits to North West LHIN hospitals increased by 18% and visits for North West LHIN residents have increased by 18%.
- Ambulatory oncology visits per 1,000 population for residents of North West LHIN is 100.3 (Ontario - 75.7). The rate is one of the 4 highest visit rates in the province.
- Oncology visits per 1,000 population for age group 0-17 years is 1.2 (Ontario - 5.0), among the lowest 4 visit rates in the province for this age group. The following age groups were noted with high (Top 4) visit rates compared to Ontario.
  - Age group 45-64 years (NW-141.4 vs. Ontario - 106.7)
  - Age group 65-79 years (NW- 317.3 vs. Ontario - 255.4)
  - Age group 80+ years (NW-275.6 vs. Ontario - 191.6)
- Visits by **Northern** sub-region residents, in age group 65 – 79 years have one of the lowest visits rates compared to Ontario. (169.0 vs Ontario - 255.4).
- The 8 highest oncology visit rates compared to all sub-regions were seen in the LHIN:
  - Age group 18-44 years, **Northern** (23.7) (Ontario - 15.9)
  - Age group 45-64 years, **District of Rainy River** (179.4), **District of Thunder Bay** (163.4), and **City of Thunder Bay** (142.0) (Ontario - 106.7)
  - Age group 65-79 years, **District of Kenora** (302.4), **District of Rainy River** (341.4), **District of Thunder Bay** (325.8), and **City of Thunder Bay** (326.9) (Ontario - 255.4)
  - Age group 80+ years, sub-region **District of Rainy River** (259.1) and **City of Thunder Bay** (304.2) (Ontario - 191.6)
- 1.1% of ambulatory oncology visits by North West LHIN residents were to hospitals outside of North West LHIN.
- 1.2% of ambulatory oncology visits to North West LHIN hospitals were by non-North West LHIN residents.

Ambulatory Oncology	North West	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory oncology visits	23,597	1,059,358	2nd lowest	Increase	
% Inflow oncology visits	1.2%				
<b>LHIN of patient</b>					
Ambulatory oncology visits	23,590	1,057,888		Increase	800 -14,671
% Outflow oncology visits	1.1%				
Visits per 1,000 population	100.3	75.7	Highest	Increase	37.1 -120.6
Visit rate/1,000 population age 0-17 years	1.2	5.0	Lowest		0.0 -2.2
Visit rate/1,000 population age 18-44 years	15.7	15.9			13.2 -23.7
Visit rate/1,000 population age 45-64 years	141.4	106.7	Highest		99.2 -179.4
Visit rate/1,000 population age 65-79 years	317.3	255.4	Highest		169.0 -341.4
Visit rate/1,000 population age 80+ years	275.6	191.6	Highest		136.4 -304.2

Ambulatory Oncology - Sub-Region	North West	District of Kenora	District of Rainy River	District of Thunder Bay	City of Thunder Bay	Northern
<b>LHIN of hospital</b>						
Ambulatory oncology visits	23,597					
% Inflow oncology visits	1.2%					
<b>LHIN of patient</b>						
Ambulatory oncology visits~	23,590	4,278	2,375	1,917	14,220	800
% Outflow oncology visits	1.1%	1.7%	0.5%	0.4%	1.1%	2.5%
Visits per 1,000 population	100.3	92.6	120.6	107.6	109.5	37.1
Visit rate/1,000 population age 0-17 years	1.2	0.7	0.0	0.0	2.2	-
Visit rate/1,000 population age 18-44 years	15.7	17.6	18.6	14.7	13.2	23.7
Visit rate/1,000 population age 45-64 years	141.4	125.5	179.4	163.4	142.0	99.2
Visit rate/1,000 population age 65-79 years	317.3	302.4	341.4	325.8	326.9	169.0
Visit rate/1,000 population age 80+ years	275.6	221.0	259.1	198.9	304.2	136.4

### Ambulatory Dialysis Utilization

- In 2016/17, there were 37,221 ambulatory dialysis visits to hospital(s) in North West LHIN.
- Since 2014/15, visits in Ontario have increased by 3%. The number of visits to North West LHIN hospitals increased by 14% and visits for North West LHIN residents increased by 13%.
- The rate of ambulatory dialysis visits per 1,000 population for residents of North West LHIN is 159.3 (Ontario - 90.4). The rate is among the 4 highest visit rates in the province.
- Dialysis visits per 1,000 population for age group 0-17 years is 0.0 (Ontario - 1.2). The rate is among the 4 lowest visit rates in the province.
- Dialysis visits per 1,000 population for age groups 18-44 years (90.0 vs. Ontario - 21.8), 45-64 years (223.1 vs. Ontario - 105.3), and 65-79 years (372.7 vs. Ontario - 285.3) are among the 4 highest visit rates in the province.
- Notable (top 8/bottom 8) dialysis visit rates by age group when compared to all sub-regions were:
  - Age group 18-44 years, [District of Rainy River](#) (85.8), [City of Thunder Bay](#) (93.8), and [Northern](#) (201.0) are among the 8 highest visit rates (Ontario- 21.8). [District of Thunder Bay](#) (5.2) has one of the lowest visits rates.
  - Age group 45-64 years, high visit rates are seen in [District of Rainy River](#) (293.1), [City of Thunder Bay](#) (225.7), [Northern](#) (554.3) (Ontario - 105.3).
  - Age group 65-79 years, high visit rates are seen in [District of Rainy River](#) (538.0) and [Northern](#) (1187.9) (Ontario - 285.3). The [District of Thunder Bay](#) (65.0) has one of the lowest rates.
  - Age group 80+ years, [District of Thunder Bay](#) (71.7) and [Northern](#) (49.2) (Ontario - 426.7) is among the lowest 8 visit rates in Ontario.
- 0.8% of ambulatory dialysis visits by North West LHIN residents were to hospitals outside of North West LHIN.
- 0.2% of ambulatory dialysis visits to North West LHIN hospitals were by non-North West LHIN residents.

*Note: Ambulatory dialysis visit volumes for residents in age group 0-17 are low to none across all sub-regions. Caution should be used when interpreting visit rates in this age group.*

Ambulatory Dialysis	North West	Ontario	Ranking among LHINs*	Trend (2014/15-2016/17) ^	Range across sub-regions
<b>LHIN of hospital</b>					
Ambulatory dialysis visits	37,221	1,269,794	Lowest	Increase	
% Inflow dialysis visits	0.2%				
<b>LHIN of patient</b>					
Ambulatory dialysis visits	37,454	1,264,676		Increase	594 -22,992
% Outflow dialysis visits	0.8%				
Visits per 1,000 population	159.3	90.4	Highest	Increase	33.3 -238.4
Visit rate/1,000 population age 0-17 years	0.0	1.2			0.0 -0.0
Visit rate/1,000 population age 18-44 years	90.0	21.8	Highest		5.2 -201.0
Visit rate/1,000 population age 45-64 years	223.1	105.3	Highest		63.3 -554.3
Visit rate/1,000 population age 65-79 years	372.7	285.3	2nd highest		65.0 -1187.9
Visit rate/1,000 population age 80+ years	356.3	426.7	4th lowest		26.1 -478.2

Ambulatory Dialysis - Sub-Region	North West	District of Kenora	District of Rainy River	District of Thunder Bay	City of Thunder Bay	Northern
<b>LHIN of hospital</b>						
Ambulatory dialysis visits	37,221					
% Inflow dialysis visits	0.2%					
<b>LHIN of patient</b>						
Ambulatory dialysis visits~	37,454	4,639	4,084	594	22,992	5,145
% Outflow dialysis visits	0.8%	0.2%	0.0%	2.2%	0.5%	2.9%
Visits per 1,000 population	159.3	100.4	207.4	33.3	177.1	238.4
Visit rate/1,000 population age 0-17 years	0.0	0.0	0.0	0.0	0.0	0.0
Visit rate/1,000 population age 18-44 years	90.0	46.8	85.8	5.2	93.8	201.0
Visit rate/1,000 population age 45-64 years	223.1	166.9	293.1	63.3	225.7	554.3
Visit rate/1,000 population age 65-79 years	372.7	255.3	538.0	65.0	374.6	1187.9
Visit rate/1,000 population age 80+ years	356.3	26.1	359.2	71.7	478.2	49.2

*\*Ranking: Top or bottom 4 ranking in the province, compared to other LHINs.*

*^ Trend: "Increase/decrease" when there is a change more than 1%, otherwise, "stable"*

*~ There are some records that can be assigned to a LHIN but not to a sub-region; in these cases, they are shown in the sub-region tables with the LHIN name but as SR unassigned.*

## Home Care

### Home Care Patient Referrals

- In 2017/18, there were 15,435 active home care patient referrals in the North West LHIN, which was the **lowest** in Ontario.
- The **City of Thunder Bay** sub-region had the largest proportion of North West LHIN patient referrals at 10,113.
- Across Ontario's sub-regions, **Northern**, **District of Thunder Bay**, **District of Rainy River**, and **District of Kenora** had the second, third, fourth and sixth lowest active patient referrals with 633, 987, 1,087 and 2,401, respectively.

### Active Patient Referrals 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across the sub-regions*
<b>City of Thunder Bay</b>	9,704	9,902	10,113	
<b>District of Kenora</b>	2,213	2,365	2,401	6 <sup>th</sup> lowest
<b>District of Rainy River</b>	934	1,072	1,087	4 <sup>th</sup> lowest
<b>District of Thunder Bay</b>	947	996	987	3 <sup>rd</sup> lowest
<b>Northern</b>	486	512	633	2 <sup>nd</sup> lowest
<b>Out of LHIN Region</b>	33	40	48	
<b>Unknown Region</b>	301	235	166	
<b>NW Total</b>	14,618	15,122	15,435	

\*Rank based on 2017/18 active patient referrals

### Home Care Referral Rate

- In 2017/18, North West LHIN's utilization rate was the third highest in the province at 65.5 referrals per 1,000 (compared to 48.2 for Ontario).
- Within the LHIN, the utilization rate ranged from 29.3 referrals per 1,000 in **Northern** to 77.9 in **City of Thunder Bay**.
- Across Ontario's sub-regions, the utilization rate for **Northern** was the third lowest in Ontario. The utilization rate for **City of Thunder Bay** was the third highest rate in the province.

### Referrals (per 1,000 population) 2015/16-2017/18

	2015/16	2016/17	2017/18	Rank across sub-regions*
<b>City of Thunder Bay</b>	74.4	76.3	77.9	3 <sup>rd</sup> highest
<b>District of Kenora</b>	48.3	51.2	52.0	
<b>District of Rainy River</b>	46.6	54.4	55.2	
<b>District of Thunder Bay</b>	52.7	55.9	55.4	
<b>Northern</b>	22.8	23.7	29.3	3 <sup>rd</sup> lowest
<b>NW Total</b>	62.1	64.3	65.5	

\*Rank based on 2017/18 utilization rates

## Home Care Services

- In North West LHIN, there were 284,723 home care visits and 571,079 service hours in 2017/18.
- The rate of home care visits was 1,207.9 per 1,000 population and the rate of service hours was 2,422.8 per 1,000 population.
- North West had the highest nursing visits per 1,000 population, highest speech language pathology visits per 1,000 population, 2<sup>nd</sup> highest case management visits per 1,000 population, and lowest nursing shift visits per 1,000 population.
- The following sub-regions had among the eight highest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - District of Rainy River had the 8<sup>th</sup> highest rate of speech language therapy visits.
  - District of Thunder Bay had the 5<sup>th</sup> highest rate of speech language therapy visits.
  - City of Thunder Bay had the highest rate of personal support hours.
  - City of Thunder Bay had the 5<sup>th</sup> highest rate of total hours.
  - City of Thunder Bay had the **highest** rate of nursing visits.
  - City of Thunder Bay had the 8<sup>th</sup> highest rate of case management visits.
  - City of Thunder Bay had the **highest** rate of total visits rate.
  - City of Thunder Bay had the **highest** rate of speech language therapy visits.
- The following sub-regions had among the eight lowest rates of visits or hours per 1,000 population within all sub-regions that reported the service:
  - District of Kenora had the 2<sup>nd</sup> lowest rate of nutrition visits.
  - District of Rainy River had the 4<sup>th</sup> lowest rate of nursing shift hours.
  - District of Rainy River had the 5<sup>th</sup> lowest rate of nutrition visits.
  - District of Thunder Bay had the **lowest** rate of nursing shift hours.
  - District of Thunder Bay had the 6<sup>th</sup> lowest rate of total hours.
  - Northern had the **lowest** rate of personal support hours.
  - Northern had the **lowest** rate of total hours.
  - Northern had the **lowest** rate of case management visits.
  - Northern had the 2<sup>nd</sup> lowest rate of nursing visits.
  - Northern had the **lowest** rate of nutrition visits.
  - Northern had the 3<sup>rd</sup> lowest rate of occupational therapy visits.
  - Northern had the 2<sup>nd</sup> lowest rate of physiotherapy visits.
  - Northern had the 2<sup>nd</sup> lowest rate of total visits rate.
  - District of Kenora and Northern sub-regions did not report nursing shift hours.
  - District of Thunder Bay sub-region did not report nutrition visits.
- Between 2014/15 and 2017/18 there was an increase in total visits of 11.6% and little change in total hours in North West LHIN. During this period case management visits increased by 40.1% and nursing shift hours increased by 166.3%.
- Between 2014/15 and 2017/18 case management visit rate increased by 40.5% and nursing shift hours rate increased by 167.2%.

## Summary of Home Care Service by Type, North West LHIN, 2017/18

	North West LHIN Residents	Ontario Residents*	Comments	LHIN % Change 2014/15 to 2017/18	Range across NW sub-regions**
<b>Service Visits</b>					
<b>All Visits†</b>	284,723	11,528,751	Lowest	11.6%	6,038-215,263
Nursing Visit	192,770	7,539,458	Lowest	9.0%	3,715-150,640
Physiotherapy	14,469	738,685	Lowest	8.6%	332-9,252
Occupational Therapy	13,100	615,215	Lowest	1.3%	329-9,718
Social Work	1,611	56,973	2 <sup>nd</sup> lowest	-29.7%	24-1,324
Nutrition and Dietetic	559	47,949	Lowest	4.1%	9-494
Speech Language Pathology	12,454	273,735		1.8%	353-9,605
Case Management	46,832	2,211,107	Lowest	40.1%	1,256-31,767
<b>Service Hours</b>					
<b>All Hours</b>	571,079	34,396,919	Lowest	-0.5%	4,968-428,974
Nursing Shift	18,652	2,366,020	Lowest	166.3%	47-17,756
Personal Support Work and Homemaking	550,325	31,319,568	Lowest	-2.7%	4,968-411,219
Respite	2,102	711,331	2 <sup>nd</sup> lowest	n/a	2,102-2,102
<b>Service Visits per 1,000 population</b>					
<b>All Visits per 1,000 population †</b>	1,207.9	810.2	2 <sup>nd</sup> highest	11.9%	279.8-1,657.8
Nursing Visit	817.8	529.8	Highest	9.3%	172.1-1,160.1
Physiotherapy	61.4	51.9		8.9%	15.4-71.3
Occupational Therapy	55.6	43.2		1.6%	15.2-74.8
Social Work	6.8	4.0		-29.5%	1.3-10.2
Nutrition and Dietetic	2.4	3.4		4.4%	0.4-3.8
Speech Language Pathology	52.8	19.2	Highest	2.1%	16.4-74.0
Case Management	198.7	155.4	2 <sup>nd</sup> highest	40.5%	58.2-244.7
<b>Service Hours per 1,000 population</b>					
<b>All Hours</b>	2,422.8	2,417.3		-0.2%	230.2-3,303.7
Nursing Shift	79.1	166.3	Lowest	167.2%	2.6-136.7
Personal Support Work and Homemaking	2,334.7	2,201.0		-2.4%	230.2-3,167.0
Respite	8.9	50.0		n/a	106.7-106.7

\*Not all LHINs offer the same services or report case management services in the same manner.

\*\*Service rates per 1,000 population are calculated using 2017/18 service levels divided by 2016 population estimates from the Ministry of Finance. Typically 2017 population estimates would be used but they were not available at the sub-region level at time of calculation.

†Includes visits for respiratory, psychology, and 'other' service types (not shown), which are not consistently reported/available in all LHINs.

n/a – not applicable due to significant changes in funding and recording



## Palliative Care

### Services Received at Home by Palliative Patients FY 2016/2017

	Provincial Ranking	LHIN	Range Across NW sub-regions
Percent of patients who received palliative home visits(home servicers or physician) in the last 90 days of life	1	16%	11% to 21%
Percent of patients who received palliative home servicers in the last 90 days of life	1	12%	3% to 14%
Percent of patients who had physician home visits in the last 90 days of life	1	9.2%	8% to 19%
Percent of patients who receive palliative home services who died in hospital	5	21%	15% to 44%
Percent of palliative care patients discharged home from hospital with the discharge status "Home with Support"	3	82%	33% to 89%
Mean days spent at home/residence in last 6 months of life	2	157 days	145 to 161 days

*\*Ranking in the province, compared to other LHINs.*

### Interpretation

- In 2016/2017, 16% of patients in North West LHIN received palliative home visits in the last 90 days of life, which is less than half of the provincial value at 36%.
  - Within the North West LHIN, all sub-regions have considerably low estimates of patients receiving palliative home visits in the last 90 days of life: [District of Kenora](#) sub-region reports the lowest percentage at 11% and [District of Thunder Bay](#) sub-region reports the highest percentage at 21%.
- In 2016/2017, the percent of patients in North West LHIN (12%) who received palliative home servicer visits in the last 90 days of life was **significantly lower** than the provincial rate (25%).
  - [Northern](#) sub-region reported 2.8% patients received home servicer visits in the last 90 days of life. [City of Thunder Bay](#) sub-region reports the highest percentage among the sub-regions at 14%. [District of Thunder Bay](#) sub-region is increasing relatively quickly, with a mean annual increase of 8.3%.
- In the North West LHIN, the percentage of patients who received physician home visits in the last 90 days of life was 9.2%, which is approximately one-third of the provincial value (28%).
  - [Northern](#) sub-region reported the highest percentage at 19%, which is less than the provincial value. [City of Thunder Bay](#) sub-region reported the lowest percentage of palliative patients with physician home visits in the last 90 days of life at 8%.
- Across Ontario, North West LHIN reported that 21% of patients who received palliative home services who died in hospital, ranking fifth among all LHINs.
  - There is dramatic variation of percentages of patients who received palliative care who died in hospital across North West sub-regions.

- The **City of Thunder Bay** sub-region has the lowest percentage of palliative patients dying in hospital at 15%, which is significantly better than the provincial value. On the other hand, **District of Thunder Bay** sub-region reports 44% of patients who received palliative care died in hospital.
- Across LHINs, North West reports that 82% of palliative care patients discharged home with “Home with Supports” status in 2016/2017, 3% lower than the provincial 85%.
  - Within North West, the sub-regions vary from 33% in **Northern** sub-region to 89% in **City of Thunder Bay** sub-region regarding palliative patients discharged with “Home with Supports” status.
- North West LHIN’s mean number of days at home among palliative patients in the last 6 months across all LHINs was 157 days, somewhat lower than the provincial value of 160 days.
  - North West sub-regions vary in mean number of days that palliative patients spend at home in their last 6 months, ranging from 145 days in the **Northern** sub-region to 161 days in the **District of Rainy River** sub-region.

#### Palliative Hospital System Measures, North West (FY 2016/17)

	Provincial Ranking	LHIN	Range Across the sub-regions
Percent of patients who had one or more unplanned ED visits in the last 30 days of life	1	47%	42% - 59%
Percent of patients who had two or more unplanned ED visits in the last 30 days of life	7	15%	12% - 26%
Percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days	13	27%	14% - 47%
Percent of people who die in hospital (all hospital settings and acute only)	10	57%	49% - 70%
Percent of people who die in acute hospital	9	45%	39% - 62%
Percent of patients who had two or more acute inpatient admissions in the last 30 days of life	3	5%	3% - 10%

### LHIN Comparison

- North West LHIN was **significantly lower** than the province in percent of patients who had one or more unplanned ED visits in the last 30 days of life and percent of patients who had two or more acute inpatient admissions in the last 30 days of life. It was **significantly higher** than the province in percent of people who died in hospital (all hospital settings and acute only).
  - For percent of patients who had one or more unplanned ED visits in the last 30 days of life, **City of Thunder Bay** sub-region was **significantly lower** than the province.
  - For percent of patients who had two or more unplanned ED visits in the last 30 days of life, **City of Thunder Bay** sub-region was **significantly lower** than the province. **District of Rainy River** and **District of Thunder Bay** sub-regions were **significantly higher** than the province.
  - For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, **District of Thunder Bay** sub-region was **significantly higher** than the province.
  - For percent of people who died in hospital (all hospital settings and acute only), **District of Thunder Bay** and **City of Thunder Bay** sub-regions were **significantly higher** than the province.
  - For percent of people who died in acute hospital, **City of Thunder Bay** sub-region was **significantly lower** than the province. The following sub-regions were **significantly higher** than the province: **District of Kenora**, **District of Rainy River**, and **District of Thunder Bay**.

### Change Over Time

- For percent of patients who had one or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of -3% was observed across the North West LHIN ranking 14<sup>th</sup> provincially.
  - Across sub-regions, **District of Kenora** (0%) and **City of Thunder Bay** (-5%) were observed highest and lowest, respectively.
- For percent of patients who had two or more unplanned ED visits in the last 30 days of life, a mean annual growth rate of -1% was observed across the North West LHIN ranking 13<sup>th</sup> provincially.
  - Across sub-regions, **District of Rainy River** (5%) and **Northern** (-13%) were observed highest and lowest, respectively.
- For percentage of palliative care patients discharged from hospital who visited ED at least once within 30 days, a mean annual growth rate of -4% was observed across the North West LHIN ranking 14<sup>th</sup> provincially.
  - Across sub-regions, **District of Kenora** (5%) and **District of Rainy River** (-19%) were observed highest and lowest, respectively.
- For percent of people who die in hospital (all hospital settings and acute only), a mean annual growth rate of -1% was observed across the North West LHIN ranking 7<sup>th</sup> provincially.
  - Across sub-regions, **Northern** (1%) and **District of Rainy River** (-3%) were observed highest and lowest, respectively.
- For percent of people who die in acute hospital, a mean annual growth rate of -2% was observed across the North West LHIN ranking 5<sup>th</sup> provincially.
  - Across sub-regions, **Northern** (0%) and **District of Rainy River** (-3%) were observed highest and lowest, respectively.
- For percent of patients who had two or more acute inpatient admissions in the last 30 days of life, a mean annual growth rate of 1% was observed across the North West LHIN ranking 5<sup>th</sup> provincially.
  - Across sub-regions, **District of Rainy River** (11%) and **City of Thunder Bay** (-4%) were observed highest and lowest, respectively.

## Emergency Department

### Emergency Department Utilization

- In 2016/17, there were 216,920 ED visits to North West LHIN hospitals, an increase of 4.3% from 2013/14. In the same time-period, the number of ED visits in the province increased by 6.5%.
- North West's crude ED visit rate of 901.5 ED visits per 1,000 population was highest in the province, more than double the provincial rate (442.2). This represented a 5.0% increase in crude visit rate in the LHIN from 2013/14 during which time the provincial crude visit rate climbed by 3.0%.
- Age adjusted ED visit rates per 1,000 population were highest for seniors 80+ at 1,412 visits per 1,000 population, following by adults aged 18-44 years (976 visits / 1,000 population), seniors aged 65-79 (909 visits per 1,000 population), children aged 0-17 (819 visits per 1,000 population) while adults aged 45-64 years had the lowest usage rate in LHIN at 793 visits per 1,000 population.
  - [District of Kenora](#) residents had the lowest ED visit rate of North West's 5 sub-regions, at 767 visits per 1000 population.
  - [District of Thunder Bay](#) sub-region had the highest crude ED visit rate in the LHIN at 1341 visits per 1,000 population, the second highest in the province.
  - None of North West's 5 sub-regions had crude ED visit rates below the provincial value, while 3 had crude ED visit rates among the highest 10% in the province ([District of Thunder Bay](#), [District of Rainy River](#), and [Northern](#) sub-regions at 1341, 1259 and 1028 respectively).
- Between 2013/14 and 2016/17 the number of North West LHIN residents visiting the ED with lower acuity levels (CTAS IV and V) decreased 6.1% to 80,905 visits. During this same time-period, visits by Ontario residents with CTAS IV and V declined 2.2%.
- Between 2013/14 and 2016/17 the number of visits with CTAS III increased by 13.9% and CTAS I & II increased by 9.8%, while provincially these numbers increased by 9.4% and 15.8% respectively.
- Overall, North West LHIN ranked 5<sup>th</sup> highest in the province in proportion of ED visits by residents that were lower acuity (38.2% for North West, and 33.5% for the province).
  - 4 out of 5 of North West's sub-regions had a higher proportion of ED visits with lower acuity (CTAS IV and V) than the province.
  - The [City of Thunder Bay](#) had the lowest proportion of ED visits with lower acuity of the LHIN's 5 sub-regions, at 20.9%.
  - The [District of Thunder Bay](#) had the highest proportion of ED visits with lower acuity in the LHIN and in the Province at 69.7%, while the [Northern](#) sub-region had the 2<sup>nd</sup> highest proportion of ED visits with lower acuity in the LHIN and in the Province at 60.6%.
- The most common causes for ED visits by North West LHIN residents were Follow-up examinations and other non-emergent conditions, diseases or disorders of the ear, nose or throat, and diseases or disorders of the skin & breast and accounted for 11.7%, 9.8%, and 9.4% of ED visits by North West LHIN residents respectively.
- 12.8% of the patients who visited ED in North West LHIN hospitals arrived via ambulance in FY16/17, as compared to 15.6% for the province.
  - The proportion of ED visits that arrived by ambulance ranged from a low of 7.1% in the [District of Thunder Bay](#) sub-region to a high of 15.7% in the [Northern](#) sub-region.
- 8.3% of the patients who visited ED in North West LHIN hospitals were admitted in FY16/17, as compared to 9.8% for the province.
  - The proportion of ED visits that resulted in a patient being admitted to hospital ranged from a low of 5.0% in the [District of Rainy River](#) to a high of 10.2% in the [City of Thunder Bay](#).

- 5.0% of the patients who visited ED in North West LHIN hospitals left without completing treatment in FY16/17, as compared to 3.9% for the province.
- 3.4% of ED visits to North West LHIN hospitals were by patients who did not reside in North West LHIN (inflow). This compares to 1.1% of ED visits by North West LHIN residents that were accessed in other LHINs (outflow).

#### Top 10 Reasons for Emergency Department Visits by LHIN, 2016/17

Leading CACS groups, by LHIN of patient	North West	
	#	% of total visits
(B187) Follow-up Examination and Other Non Emergent Condition	24,801	11.7%
(B112) Disease or Disorder Ear, Nose or Throat	20,826	9.8%
(B132) Disease or Disorder Skin & Breast	20,004	9.4%
(B128) Disease or Disorder Digestive System	16,710	7.9%
(B136) Disease or Disorder Musculoskeletal and Connective Tissue	13,201	6.2%
(B116) Disease or Disorder Respiratory System	11,474	5.4%
(B180) Contusion, Dislocation, Nerve & Other Soft Tissue Injury	9,455	4.5%
(B170) Mental Health & Psychosocial Condition	8,664	4.1%
(B122) Other Disease or Disorder Cardiac System	8,457	4.0%
(B005) Other Condition with Acute Admission/Transfer	8,372	3.9%

Measure—LHIN of Hospital	North West		Ontario	
	#	LHIN % change 2013/14- 2016/17	#	Ontario % change 2013/14- 2016/17
Visits	216,920	4.3%	6,312,121	6.5%
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	35,069	9.8%	1,284,741	15.9%
III (urgent)	95,920	13.9%	2,876,687	9.6%
IV & V (less urgent/non urgent)	83,212	-6.3%	2,128,914	-2.0%
<b>% visits by CTAS level†</b>				
I & II (resuscitation/emergent)	16.2%		20.4%	
III (urgent)	44.2%		45.6%	
IV & V (less urgent/non urgent)	38.4%		33.7%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	12.8%		15.6%	
% of visits that were admitted	8.3%		9.8%	
% of visits that left without completing treatment	5.0%		3.9%	
<b>% Inflow visits</b>	3.4%			

Measure—LHIN of Patient	North West		Ontario	
	#	LHIN % change 2013/14- 2016/17	#	Ontario % change 2013/14- 2016/17
Visits	211,992	4.4%	6,183,151	6.4%
ED visit rate/1,000 population	901.5	5.0%	442.2	3.0%
<b>Age-specific ED visit rates per 1,000 population</b>				
ED visit rate, age 0-17 years	819		429	
ED visit rate, age 18-44 years	976		411	
ED visit rate, age 45-64 years	793		388	
ED visit rate, age 65-79 years	909		516	
ED visit rate, age 80+ years	1,412		913	
<b># visits by CTAS level</b>				
I & II (resuscitation/emergent)	34,503	9.8%	1,265,237	15.8%
III (urgent)	93,926	13.9%	2,825,385	9.4%
IV & V (less urgent/non urgent)	80,905	-6.1%	2,070,962	-2.2%
<b>% visits by CTAS level</b>				
I & II (resuscitation/emergent)	16.3%		20.5%	
III (urgent)	44.3%		45.7%	
IV & V (less urgent/non urgent)	38.2%		33.5%	
<b>Other visit characteristics</b>				
% of visits that arrived by ambulance	12.9%		15.8%	
% of visits that were admitted	8.5%		9.9%	
% of visits that left without completing treatment	5.0%		3.8%	
% Outflow visits	1.1%			

ED Visit Utilization Summary, by sub-region of Patient Residence, 2016/17 North East LHIN

	District of Kenora	District of Rainy River	District of Thunder Bay	City of Thunder Bay	Northern	LHIN	Ontario
<b>Sub-Region of Patient Residence</b>							
Visits	35,448	24,796	23,904	105,655	22,189	211,992	6,183,151
ED visit rate/1,000 population	767	1259	1341	814	1028	901.5	442
% Outflow to other LHINs	0.9%	0.8%	1.6%	1.3%	0.9%	1.1%	
<b>Age-specific ED visit rates per 1,000 population</b>							
ED visit rate, age 0-17 years	699	1189	1189	820	603	819	429
ED visit rate, age 18-44 years	867	1339	1442	874	1143	976	411
ED visit rate, age 45-64 years	672	1109	1152	674	1433	793	388
ED visit rate, age 65-79 years	733	1270	1552	789	1566	909	516
ED visit rate, age 80+ years	1189	1929	2477	1278	2148	1,412	913
<b># visits by CTAS level</b>							
# CTAS Level I & II visits	4408	1324	1246	26091	1434	34,503	12715
# CTAS Level III visits	13550	10180	5680	57434	7082	93,926	20741
# CTAS Level IV & V visits	17321	11462	16653	22032	13437	80,905	13353
<b>% visits by CTAS level</b>							
I & II (resuscitation/emergent)	12.4%	5.3%	5.2%	24.7%	6.5%	16.3%	20.5%
III (urgent)	38.2%	41.1%	23.8%	54.4%	31.9%	44.3%	45.7%
IV & V (less urgent/non urgent)	48.9%	46.2%	69.7%	20.9%	60.6%	38.2%	33.5%
<b>Other visit characteristics</b>							
% of visits that arrived by ambulance	13.1%	7.4%	7.1%	14.8%	15.7%	12.9%	15.8%
% of visits that were admitted	8.5%	5.0%	5.7%	10.2%	7.1%	8.5%	9.9%
% of visits that left without completing treatment	7.0%	4.9%	3.2%	4.4%	6.9%	5.0%	3.8%



## Emergency Department Performance

- Emergency department (ED) volumes decreased from fiscal year 2013/14 (139,210 visits) to 2017/18 (135,203 visits), with North West LHIN sites ranging from 14,777 to 101,466 in fiscal year 2017/18.
- Overall, the 90<sup>th</sup> percentile ambulance offload time in fiscal year 2017/18 (10 mins) increased since fiscal year 2013/14 (9 mins), with a range of six to 22 minutes across North West LHIN sites in fiscal year 2017/18.
- The 90<sup>th</sup> percentile time to physician initial assessment (PIA) increased from two to three hours between fiscal years 2013/14 and 2017/18, with the percent within two hour target for PIA decreasing from fiscal year 2013/14 (84%) to fiscal year 2017/18 (79%). In fiscal year 2017/18, the range of North West LHIN sites for 90<sup>th</sup> percentile time to PIA was three to four hours, while the range of percent within two hour target was 69% - 82%.
- The 90<sup>th</sup> percentile consult request to arrival time increased from three hours to five hours between fiscal years 2013/14 and 2017/18, with North West LHIN sites having a range of one to five hours in fiscal year 2017/18. The percentage of consults within two hours from request decreased from fiscal year 2013/14 (85%) to 2017/18 (74%) with North West LHIN sites ranging from 73% to 97%.
- The 90<sup>th</sup> percentile time to disposition increased from seven to eight hours between fiscal years 2013/14 and 2017/18, with North West LHIN sites ranging from six to eight hours in fiscal year 2017/18.
- The 90<sup>th</sup> percentile ED length of stay increased from eight to nine hours from fiscal year 2013/14 to 2017/18, with North West LHIN sites ranging from six to ten hours in fiscal year 2017/18.
- Non-admitted low acuity ED volumes decreased steadily from fiscal year 2013/14 (46,403) to 2017/18 (33,597), with North West LHIN sites ranging from 6,213 to 18,504 in fiscal year 2017/18.
- For non-admitted low acuity visits, the 90<sup>th</sup> percentile ED length of stay and time to disposition both increased from four hours to five hours between fiscal years 2013/14 and 2017/18, with North West LHIN sites having a range of four to six hours for both measures in fiscal year 2017/18.
- The percent of non-admitted low acuity visits within target of four hours decreased from 90% in fiscal year 2013/14 to 85% in 2017/18. In fiscal year 2017/18, North West LHIN sites ranged from 74% to 91%.
- The volumes of non-admitted high acuity ED visits increased from fiscal year 2013/14 (79,483) to 2017/18 (86,633), with North West LHIN sites ranging from 4,995 visits to 70,534 visits in fiscal year 2017/18.
- For non-admitted high acuity visits from fiscal year 2013/14 to 2017/18, the 90<sup>th</sup> percentile time to disposition and ED length of stay remained stable (seven hours) while the percentage within target of eight hours decreased from 95% to 93%. In fiscal year 2017/18, non-admitted high acuity visits at North West LHIN sites ranged from six to seven hours for the 90<sup>th</sup> percentile time to disposition and was approximately seven hours for the 90<sup>th</sup> percentile ED length of stay. During the same timeframe, North West LHIN sites ranged from 93% to 94% for percentage of non-admitted high acuity volumes within target of eight hours.
- The volumes of ED admissions had also increased steadily over time from fiscal year 2013/14 (13,263) to fiscal year 2017/18 (14,950). In fiscal year 2017/18, North West LHIN sites ranged from 899 to 12,418. Across all years, the admission rates increased with acuity across all CTAS levels.
- For ED admissions, the 90<sup>th</sup> percentile time to disposition increased from 11 to 12 hours between fiscal years 2013/14 and 2017/18, with North West LHIN sites ranging from eight to 13 hours in 2017/18.
- For admitted ED visits, the 90<sup>th</sup> percentile time to inpatient bed and ED length of stay both increased from fiscal year 2013/14 to 2017/18; the time to inpatient bed from 20 to 22 hours, with North West LHIN sites ranging from four to 24 hours in fiscal year 2017/18, and ED length of stay from 27 to 30 hours, with North West LHIN sites ranging from twelve to 33 hours in fiscal year 2017/18. The percentage of ED admissions within target of eight hours decreased from fiscal year 2013/14 (39%) to 2017/18 (36%), with North West LHIN sites ranging from 29% to 75% in fiscal year 2017/18.

## Emergency department visits, North West LHIN

Measure	Fiscal Year					Range across sites, FY 17/18
	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	
All emergency department visits						
ED Volumes (All)	139,210	137,102	140,693	142,450	135,203	14,777 - 101,466
Ambulance Offload Time - 90th Percentile (mins)	9	10	9	11	10	6 - 22
Time to PIA - 90th percentile	2	2	2	3	3	3 - 4
% with Time to PIA <= 2 Hours	84%	85%	85%	83%	79%	69% - 82%
Consult Request to Arrival - 90th Percentile	3	1	1	1	5	1 - 5
% of Consults with Consult Request to Arrival <= 2 Hrs	85%	93%	94%	93%	74%	73% - 97%
Time to Disposition (All) - 90th Percentile	7	7	7	7	8	6 - 8
ED LOS - 90th Percentile	8	8	8	8	9	6 - 10
Non-admitted low acuity ED visits						
ED Volumes - Non-Admitted Low Acuity	46,403	40,973	40,574	36,918	33,597	6,213 - 18,504
% Within Target of 4 Hrs - Non-Admitted Low Acuity	90%	91%	91%	89%	85%	74% - 91%
Time to Disposition for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	5	4 - 6
ED LOS for Non-Admitted Low Acuity - 90th Percentile	4	4	4	4	5	4 - 6
Non-admitted high acuity ED visits						
ED Volumes - Non-Admitted High Acuity	79,483	82,658	86,281	91,450	86,633	4,995 - 70,534
% Within Target of 8 Hrs - Non-Admitted High Acuity	95%	94%	95%	94%	93%	93% - 94%
Time to Disposition for Non-Admitted High Acuity - 90th Percentile	7	7	7	7	7	6 - 7
ED LOS for Non-Admitted High Acuity - 90th Percentile	7	7	7	7	7	7 - 7
Admitted ED visits						
ED Volumes - Admitted	13,263	13,357	13,744	13,991	14,950	899 - 12,418
Admission Rate - CTAS 1	65%	61%	62%	61%	64%	36% - 66%
Admission Rate - CTAS 2	24%	25%	25%	24%	27%	21% - 27%
Admission Rate - CTAS 3	8%	7%	7%	7%	8%	7% - 10%
Admission Rate - CTAS 4	1%	1%	1%	1%	1%	1% - 3%
Admission Rate - CTAS 5	0%	0%	1%	0%	1%	0% - 1%
Time to Disposition for Admitted - 90th Percentile	11	11	11	12	12	8 - 13
ED LOS for Admitted - 90th Percentile	27	31	28	31	30	12 - 33
% Within Target of 8 Hrs - Admitted	39%	37%	39%	36%	36%	29% - 75%
Time to Inpatient Bed - 90th Percentile	20	23	20	23	22	4 - 24

## Acute Care

### Acute Care Utilization by Residents of the North West LHIN

#### Acute Separations

- In 2016/17, there were 27,187 acute separations (discharges), 151,509 acute days, and 201,959 total days (including acute and alternate level of care days) for North West LHIN residents.
- The acute separation rate for North West LHIN residents was 116 separations per 1,000 residents in 2016/17, highest among LHINs.
  - Rates were the lowest for residents of the [District of Kenora](#) sub-region and highest for residents of [Northern](#).
- From 2013/14 to 2016/17, the overall acute separation rate for North West LHIN residents increased by 4.8%.
  - Among sub-regions across all LHINs, all of North West LHIN's sub-regions ranked in the highest 8 for rate of acute separations per 1,000 residents.
  - [District of Rainy River](#) (2,396), [District of Thunder Bay](#) (2,433), and [Northern](#) (2,966) had the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> lowest volume of separations by sub-region of patient.

#### Acute Days

- The rate of acute days for North West LHIN residents was 644 acute days per 1,000 residents in 2016/17, highest among LHINs.
  - By sub-region, [District of Kenora](#) had the lowest (590) and [Northern](#) had the highest (862) acute days per 1,000 residents.
  - Among sub-regions, all of North West LHIN's sub-regions rank among the highest Ontario sub-regions for rate of acute days per 1,000 residents.

#### Mean Length of Stay

- The mean total length of stay (including acute days and days waiting for an alternate level of care) for North West LHIN residents was 7.4 days, while the mean acute length of stay was 5.6 days in 2016/17. These values are higher than Ontario for both total and acute length of stay, with North West LHIN residents ranked highest and 2nd highest among LHINs, respectively.
  - Acute length of stay varied among North West LHIN sub-regions, with [Northern](#) among the bottom ranking Ontario sub-regions for acute length of stay.
  - Total length of stay varied among North West LHIN sub-regions as well, with [District of Thunder Bay](#), [District of Kenora](#), [Northern](#), and the [District of Rainy River](#) all among the bottom ranking Ontario sub-regions for total length of stay.

#### HIG Weight

- The Ontario HBAM Inpatient Grouper (HIG) (similar to CMG+) aggregates acute care separations with similar resource use and clinical characteristics based on most responsible diagnosis and/or principal intervention. The HIG weight is a relative cost value that reflects the resources consumed during each acute care stay. The mean HIG weight for North West LHIN residents increased slightly from 1.48 2014/15 to 1.51 in 2016/17, remaining below the provincial value (1.55).
- The top 3 HIGs accounting for the highest proportion of acute care days for North West LHIN residents in 2016/17 were: 196-heart failure without coronary angiogram, 138-viral/unspecified pneumonia, and 805-rehabilitation.

### Acute Care Hospital Utilization (Excluding ALC) LHIN of Patient, North West LHIN, 2016/17

	North West LHIN Residents	Ontario Residents*	Rank among LHINs	Range across NW sub-regions
<b>Acute Care Measures</b>				
Total Population	235,148	13,982,984		19,692 – 129,846
Acute Separations	27,187	1,028,979		2,396 – 14,500
Acute Separation Rate per 1,000 Population	116	74	Highest	106 – 137
Acute Days	151,509	5,455,693		13,237 – 78,363
Acute Days Rate per 1,000 Population	644	390	Highest	590 – 862
Total Days	201,959	6,477,528		18,632 – 99,280
Total Days Rate per 1,000 Population	859	463	Highest	765 – 1,075
Mean Acute LOS	5.6	5.3	2 <sup>nd</sup> Highest	5.4 – 6.3
Mean Total LOS	7.4	6.3	Highest	6.8 – 9.0
Mean HIG Weight	1.50	1.55		—
<b>Leading HIGs (Acute Care Days)†</b>				
(196) Heart Failure w/o Coronary Angiogram	5,024	175,995		276 – 3,367
(138) Viral/Unspecified Pneumonia	4,615	119,810		244 – 2,435
(805) Rehabilitation	3,576	34,482		14 – 1,609

\* Ontario residents exclude Out-of-province

† Leading HIGs include Out-of-province for Ontario Values

## Acute Care Utilization for North West LHIN Facilities

- There were 26,295 acute separations, 142,875 acute days, and 193,259 total days at North West LHIN hospitals in 2016/17. North West LHIN hospitals have the lowest separations, acute days and total days of all the LHINs.

### Separations

- Separations increased by 4.2% between 2013/14 and 2016/17. During this same period, for Ontario hospitals overall, separations increased by 3.8%.

### Acute Days

- Acute days decreased by 7.2% between 2013/14 and 2016/17. Acute days increased by 2.2%, for all Ontario hospitals overall, during this same period.
- Mean acute length of stay for 2016/17 at hospitals in the North West LHIN was 5.5 days. This is higher than the provincial result of 5.3 days.

### Total Days

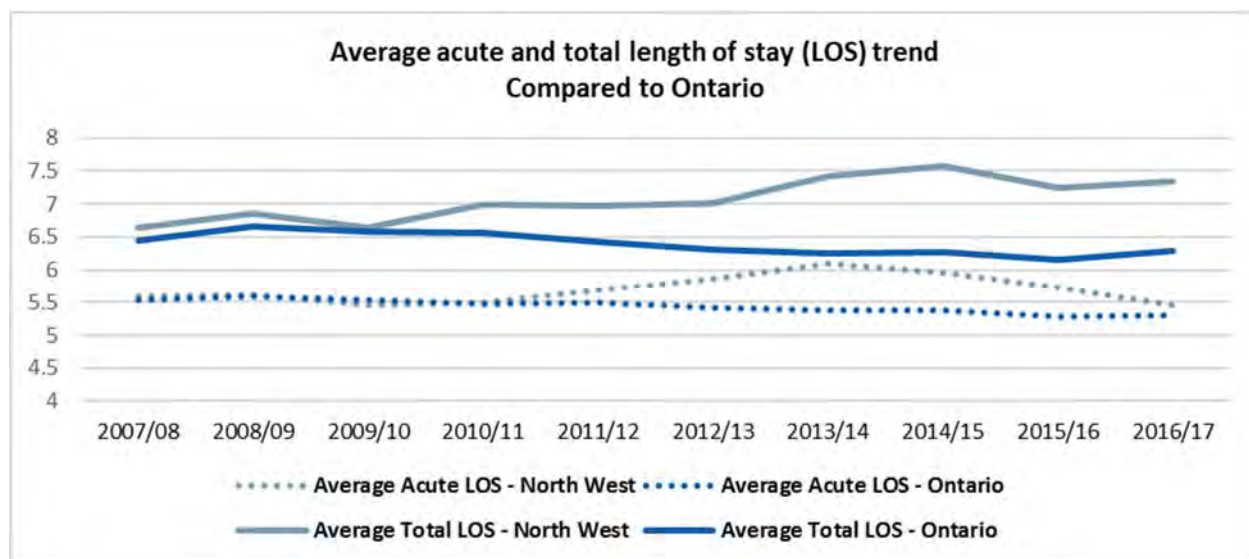
- Total days increased by 3.2% between 2013/14 and 2016/17. Overall Ontario hospitals had an increase of 4.2% of total days during this period.
- Mean total length of stay for this LHIN was 7.3 days, which is the highest rate of all LHINs. It is also higher than mean total length of stay for Ontario, which was 6.3 days.

### HBAM Group (HIG) Weight

- Mean HIG weight for North West LHIN hospitals in 2016/17 of 1.41 was lower than the provincial value of 1.55.

## Acute care hospital utilization, North West LHIN, 2016/17

Measure	North West LHIN	Ontario hospitals	Comments	LHIN % change	Range within LHINs
				2013/14 - 2016/17	
Acute separations	26,295	1,041,308		4.2%	26,295 - 159,315
Total days	193,259	6,542,800		3.2%	193,259 - 1,050,391
Mean total LOS	7.3	6.3	Highest		5.0 - 7.3
Acute days	142,875	5,518,912		-7.2%	142,875 - 917,167
Mean acute LOS	5.5	5.3			4.5 - 5.8
Mean HIG weight	1.41	1.55			1.23 - 1.94



## Acute Care Inflow/Outflow

### Inflow

- 1.6% of hospital separations from North West LHIN hospitals were by non- North West LHIN residents
- This is the 2<sup>nd</sup> lowest proportion of inflow among all LHINs

### Outflow

- 4.8% of separations for North West LHIN residents were from hospitals outside North West LHIN
- This is the 2<sup>nd</sup> lowest proportion of outflow among all LHINs
  - By sub-region, **District of Kenora** had the 5<sup>th</sup> lowest proportion of outflow to other LHINs (2.5%), while **Northern** had the 6<sup>th</sup> lowest (2.8%)

### Inflow - Outflow, North West LHIN, 2016/17

Measure	North West LHIN	Ontario Hospitals	Comments	Range across NW sub-regions <sup>†</sup>
Acute care separations, LHIN of hospital	26,295	1,041,322	<b>Lowest</b>	2,266 – 13,681
Acute care separations, LHIN of patient 2016/17	27,187	1,041,322	<b>Lowest</b>	2,396 – 14,500
% inflow	1.6%		2 <sup>nd</sup> lowest	NA
% outflow	4.8%		2 <sup>nd</sup> lowest	2.5% - 6.8%

<sup>†</sup>Excludes unassigned sub-region

## Post-Acute Care

### Inpatient Rehabilitation Utilization

#### Rehabilitation Admissions

- The number of total rehabilitation admissions at the LHIN hospitals, including both general admissions and special admissions, was 533 in FY 16/17, an increase of 13.4% from FY 13/14.
  - The number of general rehabilitation admissions was 304 in FY 16/17, an increase of 9.7% from FY 13/14.
  - The number of special rehabilitation admissions was 229 in FY 16/17, an increase of 18.7% from FY 13/14.
- The number of total rehabilitation admissions of the LHIN residents, was 539 in FY 16/17, an increase of 13.5% from FY 13/14.

#### Active Cases and Discharges

- In FY 16/17, the number of active cases was 836 while the number of discharges was 525.

#### Inpatient Days

- The number of total inpatient days was 16,943 in FY 16/17.
- The mean length of stay at the LHIN hospitals was 32.3 days.
- By sub-region of patient residence:
  - [District of Rainy River](#) residents had the longest length of stay at 42.2 days.
  - [Northern](#) residents had the shortest length of stay at 29.9 days.

#### Admission Rate

- The number of admissions per 100,000 adults (age 18+) was 287.6 in FY 16/17, an increase of 13.6% from FY 13/14.
  - Age group 18-44 years had the lowest admission rate, 55.4 per 100,000 population.
  - Age group 80+ years had the highest admission rate, 1,452.7 per 100,000 population.
- By sub-region of patient residence:
  - [City of Thunder Bay](#) residents had the highest admission rate at 384.0.
  - [District of Kenora](#) residents had the lowest admission rate at 106.8.

#### Active Case Rate

- The number of active cases per 1,000 population age 18+ was 446.6.

#### Discharge Rate

- The number of discharges per 1,000 population age 18+ was 285.5.

#### Leading Rehabilitation Group

- The 5 leading rehabilitation groups that contributed to the total admissions in FY 16/17 were:
  - Stroke accounted for 127 admissions or 23.6% of the total admissions.
  - Fracture of lower extremity accounted for 95 admissions or 17.6 % of the total admissions.
  - Replacement of lower extremity accounted for 87 admissions or 16.1% of the total admissions.
  - Non-traumatic spinal cord injury accounted for 55 admissions or 10.2% of the total admissions.
  - Major multiple trauma accounted for 32 admissions or 5.9% of the total admissions.

### Outflow

- Hospitals outside the LHIN accounted for 3.2% of the total rehabilitation admissions of the LHIN residents
- By sub-region of patient residence:
  - District of Kenora residents had the highest rate of admission to hospitals outside the LHIN at 7.7%.
  - Northern residents had the lowest rate of admission to hospitals outside the LHIN at 0.0%.

### Inflow

- 2.1% of the rehabilitation admissions at the hospitals in the LHIN were residents from outside North West.

Rehab Admissions, Active Cases, Discharges and Days*	LHIN	Ontario	Ranking Among LHINs**	% Change 2013/14-2016/17	Range across sub-region
<b>LHIN of hospital</b>					
General admissions	304	28,691		9.7%	
Special admissions	229	4,444		18.7%	
Total admissions	533	33,135		13.4%	
% Inflow inpatient rehab admissions	2.1%				
Active Cases	836	43,329			
Discharges	525	33,133			
Total Days (discharged cases only)	16,943	839,228			
Mean Length of Stay (discharged cases only)	32.3	25.3	Highest		
<b>LHIN of patient</b>					
Total population age 18+	187,400	11,287,810		-0.3%	
Total admissions	539	33,016		13.5%	25-413
Admissions/100,000 population age 18+	287.6	292.5		13.6%	106.8-384.0
Admissions/100,000 population age 18-44 years	55.4	30.4	Highest		53.0-119.6
Admissions/100,000 population age 45-64 years	234.7	150.9	Highest		113.6-298.0
Admissions/100,000 population age 65-79 years	593.3	689.3			217.2-787.0
Admissions/100,000 population age 80+ years	1,452.7	2,311.8			588.8-1,993.8
% Outflow inpatient rehabilitation admissions	3.2%				0.0%-7.7%
Active cases per 1,000 population age 18+	446.6	382.3	3 <sup>rd</sup> highest		147.9-583.0
Discharges per 1,000 population age 18+	285.5	292.5			101.3-381.2
Mean Length of Stay (discharged cases only)	32.7	25.3	Highest		29.9-42.2



Measure	District of Kenora	District of Rainy River	District of Thunder Bay	City of Thunder Bay	Northern
Rehab Admissions	39	29	33	413	25
Rehab Admission Rate per 100,000 Population	106.8	186.7	232.5	384.0	183.7
Rehab Active Cases	54	49	67	627	40
Rehab Active Case Rate per 100,000 Population	147.9	315.4	472.1	583.0	293.9
Rehab Discharges	37	29	34	410	25
Rehab Discharge Rate per 100,000 Population	101.3	186.7	239.6	381.2	183.7
Total Inpatient Days (discharged cases only)	1,257	1,225	1,333	12,921	747
Mean LOS (discharged cases only)	34.0	42.2	39.2	31.5	29.9
<b>Age specific admission rates per 100,000 population</b>					
18-44 years	-	119.6	-	53.0	94.2
45-64 years	113.6	169.4	254.0	279.4	298.0
65-79 years	245.2	217.2	598.5	787.0	-
80+ years	-	588.8	-	1,993.8	-

Rehab Admissions, by Leading Rehabilitation Groups*	LHIN	% of Total Rehab Admission
<b>LHIN of Patient</b>		
01-Stroke	127	23.6%
10-Fracture of lower extremity	95	17.6%
11-Replacement of lower extremity	87	16.1%
06-Non-traumatic spinal cord injury	55	10.2%
16-Major multiple trauma	32	5.9%
18-Other disabilities		
12-Other orthopaedic		
03-Non-traumatic brain injury		
13-Cardiac		
07-Amputation		
02-Traumatic brain injury		

\* FY 16/17 data unless noted otherwise.

\*\* Top or bottom 4 ranking in the province, compared to other LHINs.

## Complex Continuing Care Utilization

### Complex Continuing Care

- In 2016/17, there were 1,485 CCC active cases treated in North West LHIN hospitals and residents from outside the LHIN accounted for 0.6% of these active cases. In 2016/17, there were 1,241 admissions and 1,200 discharges from North West LHIN hospital CCC units. North West LHIN hospitals had a mean LOS of 65.7 days - ranking 8th across LHINs.
- There were increases in the number of active cases (37.2%), admissions (43.5%), discharges (42.2%) and total days (27.8%) for North West LHIN hospital CCC units between 2013/14 and 2016/17.
- During the period, the mean length of stay in CCC beds decreased from 73.2 days to 65.7 days.
- In 2016/17, there were 1,482 CCC active cases for North West LHIN residents, and 0.4% of these cases were treated in hospitals outside the LHIN.
- The active case rate for North West LHIN residents was higher than the provincial value.

### Utilization of Complex Continuing Care, North West LHIN and Ontario, 2016/17

Measure	North West LHIN		Ontario	
	LHIN	% Change	Provincial	% Change
	Values	2013/14-2016/17	Value	2013/14-2016/17
<b>LHIN of Hospital</b>				
Active Cases	1,485	37.2%	29,466	-0.1%
% Inflow	0.6%			
Admissions	1,241	43.5%	24,108	0.5%
Discharges	1,200	42.2%	23,995	-0.2%
Total Days	78,888	27.8%	1,855,227	-2.0%
Mean LOS	65.7		77.3	
<b>LHIN of Patient</b>				
Active Cases	1,482	37.3%	29,366	0.3%
Active cases/100,000 population	630.2	38.0%	210.0	-2.9%
% Outflow	0.4%			
Admission	1,238	43.5%	24,022	0.8%
Admissions/100,000 population	526.5		171.8	
Discharges	1,195	41.6%	23,908	0.1%
Discharges/100,000 population	508.2		171.0	
Total Days	78,565	31.3%	1,850,599	-1.1%
Mean LOS	65.7		77.4	

## Alternate Level of Care

### LHIN overview

North West LHIN						
Measure	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	Rank
Acute ALC Days (closed cases)	33,313	42,592	40,455	50,384	NV	6
% ALC Days (Acute Inpatient closed cases)	17.8%	21.7%	21.3%	26.1%	NV	13
Volume of Closed Cases	2,213	2,576	2,732	2,851	3,138	6
Volume of Closed Cases - Complex Continuing Care	603	704	809	807	888	
Volume of Closed Cases - Home with CCAC Services	373	414	452	467	470	
Volume of Closed Cases - Long Term Care	347	463	439	466	567	
90 <sup>th</sup> Percentile Wait of Closed Cases (Days)	62	72	64	72	72	12
90 <sup>th</sup> Percentile Wait of Closed Cases - Complex Continuing Care	18	16	14	14	17	
90 <sup>th</sup> Percentile Wait of Closed Cases - Home with CCAC Services	33	28	26	37	29	
90 <sup>th</sup> Percentile Wait of Closed Cases - Long Term Care	318	340	333	343	289	
Volume of Open Cases on the last day of the year	268	256	237	326	327	10
Volume of Open Cases - Home with CCAC Services	15	11	15	24	23	
Volume of Open Cases - Long Term Care	164	146	159	188	177	
Volume of Open Cases - Supervised or Assisted Living	29	18	22	26	29	
90 <sup>th</sup> Percentile Wait of Open Cases	805	984	667	409	473	13
90 <sup>th</sup> Percentile Wait of Open Cases - Home with CCAC Services	25	38	312	324	400	
90 <sup>th</sup> Percentile Wait of Open Cases - Long Term Care	915	984	623	436	437	
90 <sup>th</sup> Percentile Wait of Open Cases - Supervised or Assisted Living	1,246	1,414	1,359	1,500	679	
Throughput Ratio (discharged case/newly added cases)	0.99	1.00	1.00	0.97	0.98	6
% of Cases Designated ALC Within 1 Day	9.7%	10.6%	11.1%	11.5%	12.1%	14
% of Cases Designated ALC Within 2 Days	15.0%	16.0%	18.6%	18.8%	19.2%	14
% of Cases Designated ALC Within 3 Days	20.4%	22.8%	26.4%	26.8%	27.8%	14
ALC Rate - All Inpatient Services	26.8%	27.6%	27.1%	29.8%	33.9%	14
ALC Rate - Acute Inpatient Services	18.9%	21.7%	22.6%	26.8%	32.2%	14
ALC Rate - Post-Acute Inpatient Services	38.3%	36.0%	33.2%	34.0%	36.0%	14
ALC Rate - CCC Inpatient Services	44.8%	44.0%	40.8%	45.3%	47.9%	12
ALC Rate - Rehab Inpatient Services	6.0%	4.6%	5.5%	6.9%	14.9%	12
ALC Rate - Mental Health Inpatient Services	40.0%	31.7%	27.9%	18.7%	16.0%	13

## Closed ALC Cases

### Acute ALC Days

- Acute ALC Days increased by 17,071 from FY 13/14 to FY 16/17

### % ALC Days (Acute Inpatient)

- % ALC Days increased from 17.8% in FY 13/14 to 26.1% in FY 16/17

### Volume of Closed Cases

- The volume of closed cases for all inpatient services increased by 42% from 2,213 in FY 13/14 to 3,138 in FY 17/18.
  - Complex Continuing Care – number of closed cases increased by 47% from 603 in FY 13/14 to 888 in FY 17/18
  - Home with CCAC Services – number of closed cases increased by 26% from 373 in FY 13/14 to 470 in FY 17/18
  - Long-term Care - number of closed cases increased by 63% from 347 in FY 13/14 to 567 in FY 17/18

### 90th Percentile Wait of Closed Cases

- The wait time for closed cases (all inpatients services and all discharge destinations) increased by 16% from 62 days in FY 13/14 to 72 days in FY 17/18. 3<sup>rd</sup> in North West at the end of FY 17/18.
  - Complex Continuing Care – wait time decreased by 6% from 18 days in FY 13/14 to 17 days in FY 17/18.
  - Home with CCAC Services - wait time decreased by 12% from 33 days in FY 13/14 to 29 days in FY 17/18.
  - Long-term Care – wait time decreased by 9% from 318 days in FY 13/14 to 289 days in FY 17/18.

### Wait Time by Sub-Region of Patient Residence

- **District of Thunder Bay** residents have the longest wait in the LHIN at 312 days; **City of Thunder Bay** had the shortest at 57 days.
- **District of Thunder Bay** is the **highest** in province
- **District of Rainy River** 5<sup>th</sup> highest in province

## Open ALC Cases

### Volume of Open Cases

- The number of ALC waitlist entries open across all inpatient bed types increased by 22% from 268 at the end of FY 13/14 to 327 at the end of FY 17/18.
  - Home with CCAC Services – number of open cases increased by 53% from 15 at the end of FY 13/14 to 23 at the end of FY 17/18
  - Long-term Care – number of open cases increased by 8% from 164 at the end of FY 13/14 to 177 at the end of FY 17/18
  - Supervised or Assisted Living - number of open cases has remained steady from 29 at the end of FY 13/14 to 29 at the end of FY 17/18

### 90th Percentile Wait of Open Cases

- The wait time for open cases (all inpatients services and all discharge destinations) decreased by 41% from 805 days at the end of FY 13/14 to 473 days at the end of FY 17/18. Patients awaiting discharge from North West LHIN hospitals had waited 401 days longer than patients who were discharged in 17/18, and had the 2<sup>nd</sup> longest wait across the LHINs at the end of FY 17/18.
  - Home with CCAC Services – wait time increased by 1500% from 25 days at the end of FY 13/14 to 400 days at the end of FY 17/18.

- Long-term Care – wait time decreased by 52% from 915 days at the end of FY 13/14 to 437 days at the end of FY 17/18.
- Supervised or Assisted Living - wait time decreased by 46% from 1246 days at the end of FY 13/14 to 679 days at the end of FY 17/18.

#### *Wait Time by Sub-Region of Patient Residence*

- District of Rainy River had the longest wait in the LHIN at 946 days; District of Kenora had the shortest at 358 days
- District of Thunder Bay 3<sup>rd</sup> highest in province
- District of Rainy River is the **highest** in province

#### **ALC Wait Time (Days) by Sub-Region of Patient Residence**

North West LHIN					
Closed & Open Cases - All Discharge Destinations by Sub-Region	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18
<i>90<sup>th</sup> Percentile Wait of Closed Cases</i>					
1401 DISTRICT OF KENORA	62	100	80	131	85
1402 DISTRICT OF RAINY RIVER	39	59	108	85	100
1403 DISTRICT OF THUNDER BAY	140	402	245	274	312
1404 CITY OF THUNDER BAY	56	60	50	49	57
1405 NORTHERN	112	81	93	112	70
<i>90<sup>th</sup> Percentile Wait of Open Cases</i>					
1401 DISTRICT OF KENORA	245	80	310	282	358
1402 DISTRICT OF RAINY RIVER	126	151	367	581	946
1403 DISTRICT OF THUNDER BAY	1209	937	781	682	743
1404 CITY OF THUNDER BAY	915	1156	976	407	429
1405 NORTHERN	0	419	260	126	417

## Hospital Processes and Capacity

### ALC Throughput Ratio

- In the North West LHIN, the throughput ratio decreased from 0.99 in FY 13/14 to 0.98 in FY 17/18.

### Percentage of Patients Designated ALC within 1, 2 & 3 Days of Admission

- The percentage of patients that have been designated as requiring an alternate level of care within one, two and three days of admission to hospital increased over the last five years in the North West LHIN from FY 13/14 to FY 17/18. All 3 measures are ranked highest in the province (1<sup>st</sup>, 1<sup>st</sup>, 1<sup>st</sup> respectively)

### ALC Rate (All Inpatient Services)

- The annual ALC rate for all inpatient beds increased from 26.8% in FY 13/14 to 33.9% in FY 17/18.
- In FY 17/18, the North West LHIN was above the provincial rate of 15.4%.

#### *Acute I/P Services*

- North West LHIN increased over the past 5 fiscal years (18.9% FY 13/14; 32.2% FY 17/18) and is now 16.0% above the provincial value.

#### *Post-Acute I/P Services*

- North West LHIN decreased over the past 5 fiscal years (38.3% FY 13/14; 36.0% FY 17/18). North West LHIN is above the provincial Post-acute ALC rate (Highest in ON).
  - CCC Inpatient Services – 3<sup>rd</sup> across LHINs for FY 17/18. Rate increased from 44.8% in FY 13/14 to 47.9% in FY 17/18.
  - Mental Health Inpatient Services – 2<sup>nd</sup> across LHINs for FY 17/18. Rate decreased from 40.0% in FY 13/14 to 16.0% in FY 17/18.
  - Rehab Inpatient Services – 3<sup>rd</sup> across LHINs for FY 17/18. Rate increased from 6.0% in FY 13/14 to 14.9% in FY 17/18.

## LHIN/Facility/Site – Annual ALC Rate

Province/LHIN/Facility/Site			Annual ALC Rate					% Change
			FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 13/14 to FY 17/18
<b>Provincial</b>			<b>13.8%</b>	<b>13.7%</b>	<b>13.9%</b>	<b>14.8%</b>	<b>15.4%</b>	
<b>LHIN</b>	<b>14</b>	<b>North West</b>	26.8%	27.6%	27.1%	29.8%	33.9%	7.1%
<b>Facility</b>	600	ATIKOKAN GENERAL HOSPITAL	68.6%	67.4%	60.0%	46.3%	53.0%	(-15.6%)
<b>Facility</b>	647	DRYDEN REGIONAL HEALTH CENTRE	25.6%	19.8%	17.2%	28.3%	34.9%	9.3%
<b>Facility</b>	662	GERALDTON DISTRICT HOSPITAL	59.0%	56.3%	61.7%	67.8%	73.7%	14.7%
<b>Facility</b>	719	MANITOUWADGE HOSPITAL	28.0%	37.1%	60.7%	61.2%	51.8%	23.9%
<b>Facility</b>	721	WILSON MEMORIAL GENERAL HOSPITAL	35.4%	40.5%	25.4%	NR	NR	
<b>Facility</b>	739	NIPIGON DISTRICT HOSPITAL	24.1%	27.6%	34.4%	22.9%	28.5%	4.5%
<b>Facility</b>	781	ST JOSEPH'S CARE GROUP	45.5%	42.2%	37.0%	39.1%	37.3%	(-8.2%)
<b>Site</b>	3892	ST JOSEPH'S CARE GROUP	37.0%	37.1%	33.8%	38.9%	38.2%	1.2%
<b>Site</b>	4563	ST JOSEPH'S CARE GROUP - LAKEHEAD	81.3%	72.4%	56.6%	40.6%	31.9%	(-49.4%)
<b>Facility</b>	819	MCCAUSLAND HOSPITAL	18.7%	13.4%	27.5%	NR	NR	
<b>Facility</b>	826	LAKE-OF-THE-WOODS DISTRICT HOSPITAL	13.1%	22.0%	23.5%	32.1%	32.4%	19.3%
<b>Facility</b>	896	RED LAKE COUCHENOR MEMORIAL HOSPITAL	21.9%	8.8%	36.9%	44.8%	37.0%	15.1%
<b>Facility</b>	900	RIVERSIDE HEALTH CARE FAC	23.1%	29.1%	43.4%	41.6%	47.6%	24.6%
<b>Site</b>	4124	RIVERSIDE -LAVERENDRYE	22.6%	28.0%	41.4%	39.9%	47.0%	24.4%
<b>Site</b>	4125	RIVERSIDE -EMO SITE	39.7%	56.5%	53.1%	33.1%	24.2%	(-15.4%)
<b>Site</b>	4126	RIVERSIDE -RAINY RIVER	14.3%	15.5%	67.0%	83.8%	79.1%	64.8%
<b>Facility</b>	935	THUNDER BAY REGIONAL HLTH SCIENCES CTR	15.4%	16.0%	15.9%	17.1%	22.7%	7.3%
<b>Facility</b>	964	SIOUX LOOKOUT MENO-YA-WIN HLTH CTR-DISTR	16.9%	28.7%	24.4%	33.5%	33.5%	16.6%
<b>Facility</b>	977	NORTH OF SUPERIOR HEALTHCARE GROUP	NR	NR	NR	35.2%	59.5%	24.3%
<b>Site</b>	4820	NORTH OF SUPERIOR HEALTHCARE GROUP-WILSON SITE	NR	NR	NR	24.4%	55.7%	31.3%
<b>Site</b>	4823	NORTH OF SUPERIOR HEALTHCARE GROUP-MCCAUSLAND SITE	NR	NR	NR	50.4%	64.1%	13.7%

\*If all 5 years are not available, then available years used to calculate % change

- In FY 17/18, Gerald District Hospital had the highest ALC Rate across the North West LHIN at the facility level, with Riverside – Rainy River having the highest site level rate.
- Riverside – Rainy River had the greatest increase in ALC Rate since FY 13/14 (+64.8%)
- St. Joseph's Care Group - Lakehead had the greatest decrease in ALC Rate since FY 13/14 (-49.4%).

## Long-Term Care: Supply, demand, and time to placement

### Long-Term Care Bed Supply

- 19 LTC homes are licensed and approved to operate in North West LHIN.
- As of February 2018, there were a total of 1,865 Long-Term Care beds in operation in North West LHIN.
  - With the exception of 24 beds designated as Short-stay, Respite or Convalescent care beds, almost all of the LTC beds are designated Long-Stay Beds or Interim beds.

### Long-Term Care Waitlist & Placements

- Of the 600 patients placed in North West LHIN Long-Term Care Homes in FY 2017/18, approximately 42% were from the community while only 35% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- Of the 601 residents of North West LHIN placed in Ontario Long-Term Care Homes in FY 2017/18, approximately 42% were from the community while only 35% were from hospital. The remainder of placements in LTC were from other locations (correctional facilities, homeless, out-of-province).
- The median time to placement in a North West LHIN long-term care home, as of March 2018, was 198 days.
  - Half of community patients waited less than 220 days for a placement in a North West LHIN LTC home while half of hospital patients waited less than 139 days for placement in a North West LHIN LTC Home.
- The median time to placement for a North West LHIN resident to be placed in a long-term care home, as of March 2018, was 197 days.
  - Half of community patients from North West LHIN waited less than 220 days for a placement in an Ontario LTC home while half of hospital patients waited less than 139 days for placement.
- As of March 2018, there were 762 patients on the waitlist waiting for placement in a Long-Term Care home in North West LHIN (not including patients awaiting transfer from one LTC home to another).
- As of March 2018, there were 760 residents of North West LHIN on the waitlist waiting for placement in an Ontario Long-Term Care home (not including patients awaiting transfer from one LTC home to another).

### Long-Stay Demand

- As of March 2018, there were 1,802 long-stay residents occupying LTC Homes within North West LHIN.
- When adjusted for the size of the older population, North West LHIN has approximately 105 Long-Stay beds per 1,000 people aged 75+.
- The gap between the demand and supply of Long-Term Care Homes in North West LHIN reflects a shortage of approximately 723 Long-Stay beds.
  - The largest gap is in the [City of Thunder Bay](#) sub-region (507 beds) and the smallest in the [District of Rainy River](#) (28 beds).

### Selected Characteristics of Long-Term Care Home Residents

- In North West LHIN, 83% of Residents were over the age of 75 with 57% being over the age of 85
- In 2016/17, the mean age of residents of LTC Homes in North West LHIN was 84.
- The mean length of stay for residents of LTC Homes in North West LHIN was 826 days (about 2.3 years) with half of residents remaining in LTC homes for less than 443 days.
- Nearly 77% of residents need extensive help with daily activities such as getting out of bed, eating, or toileting; 27% are highly or entirely dependent on staff.
- 84% have some form of cognitive impairment; 36% are severely impaired.
- 44% exhibit some level of aggressive behaviour related to their cognitive impairment or mental health condition with 6% exhibiting very severe aggressive behavior.



- 67% of active LTC Residents in North West LHIN LTC Homes have been identified as having some form of dementia.

### Long-term care home supply, waitlists and placements, and resident characteristics, by LHIN sub-region

	North West		1401		1402		1403		1404		1405	
			District of Kenora		District of Rainy River		District of Thunder Bay		City of Thunder Bay		Northern	
Long-term care bed supply in the sub-region (February 2018)	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-term care homes	19		4		4		4	0	6		1	
Long-stay beds	1,841	104.9	339	105.1	211	126.6	65	61.3	1,206	108.6	20	40.4
Short-stay, respite & convalescent care beds	24	1.4	2	0.6	12	7.2	0	0	10	0.9	0	0
Total beds in operation	1,865	106.3	341	105.8	223	133.8	65	61.3	1,216	109.5	20	40.4

*†The denominator for the rate calculation refers to the number of sub-region residents age 75+; however the LTC homes/beds may serve individuals from other sub-regions. Therefore, rates should be interpreted with caution.*

	North West		1401		1402		1403		1404		1405	
			District of Kenora		District of Rainy River		District of Thunder Bay		City of Thunder Bay		Northern	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>By sub-region of long-term care <u>home</u> (patients awaiting placement in a home within the sub-region)</b>												
Long-stay waitlist without transfer patients*	762	43.4	116	36.0	35	21.0	45	42.5	523	47.1	43	86.9
<b>Placements**</b>												
From community	253	42.2%	45	47.9%	22	42.3%	6	40.0%	179	41.5%	1	12.5%
From hospital	211	35.2%	45	47.9%	25	48.1%	9	60.0%	126	29.2%	6	75.0%
Total	600		94		52		15		431		8	
<b>Median time to placement (days)</b>												
From community	220		176.0		60.5		196.5		253.0		1,040.0	
From hospital	139		63.0		77.0		340.0		158.5		683.0	

	North West		1401		1402		1403		1404		1405	
			District of Kenora		District of Rainy River		District of Thunder Bay		City of Thunder Bay		Northern	
Long-term care waitlist (March 2018) and placements (2017/18)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
Total	198		135.5		72.5		327.0		231.0		685.5	
<b>By sub-region of patient (patients who reside within the sub-region and are awaiting placement in any home)</b>												
Long-stay waitlist without transfer patients*	760	43.3	115	35.7	36	21.6	56	52.8	508	45.7	45	90.9
Placements**												
From community	253	42.1%	41	46.6%	23	43.4%	8	42.1%	175	41.4%	6	33.3%
From hospital	213	35.4%	43	48.9%	25	47.2%	10	52.6%	124	29.3%	11	61.1%
Total	601		88		53		19		423		18	
Median time to placement (days)												
From community	220		176.0		61.0		370.5		271.0		118.5	
From hospital	139		62.0		77.0		333.5		162.0		561.0	
Total	197		129.0		79.0		327.0		233.0		352.5	

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents

Placements from other locations (correctional facilities, homeless, out-of-province) are not shown but are included in the total placement values.

	North West		1401		1402		1403		1404		1405	
			District of Kenora		District of Rainy River		District of Thunder Bay		City of Thunder Bay		Northern	
Long-stay demand (February / March 2018) for LTC homes in the sub-region	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+	#	Rate per 1,000 population age 75+
Long-stay residents	1,802	102.7	324	100.5	204	122.4	64	60.4	1,190	107.2	20	40.4
Long-stay waitlist without transfer patients	762	43.4	116	36.0	35	21.0	45	42.5	523	47.1	43	86.9
Total demand	2,564	146.1	440	136.5	239	143.4	109	102.8	1,713	154.3	63	127.3
Total long-stay supply	1,841	105	339	105.1	211	126.6	65	61.3	1,206	108.6	20	40.4
Difference between supply and demand	723	41	101	31.3	28	16.8	44	41.5	507	45.7	43	86.9

	North West		1401		1402		1403		1404		1405	
			District of Kenora		District of Rainy River		District of Thunder Bay		City of Thunder Bay		Northern	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Demography, volume and length of stay (LOS)</b>												
Active LTC Residents*	1,501	85.5	297	92.1	152	91.2	52	49.1	983	88.5	17	34.3
Number of admissions*	664	37.8	136	42.2	65	39.0	31	29.2	426	38.4	6	12.1
<b>By age group**</b>												
Residents age <65	89	5.9%	18	6.1%	8	5.3%	6	11.5%	54	5.5%	<5	
Residents age 65-74	163	10.9%	34	11.4%	11	7.2%	10	19.2%	104	10.6%	<5	
Residents age 75-84	399	26.6%	99	33.3%	44	28.9%	12	23.1%	240	24.4%	<5	
Residents age 85+	850	56.6%	146	49.2%	89	58.6%	24	46.2%	585	59.5%	6	35.3%
Mean age of residents	84		83		84		80		84		72	
Mean age of residents at admission	83		82		84		82		84		80	

	North West		1401		1402		1403		1404		1405	
			District of Kenora		District of Rainy River		District of Thunder Bay		City of Thunder Bay		Northern	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>Length of stay</b>												
Mean LOS (days)	826		1,094		874		639		727		1,008	
Median LOS (days)	443		754		577		592		370		575	
<b>Residents by level of ADL assistance required**</b>												
None or limited assistance required	344	22.9%	100	33.7%	32	21.1%	22	42.3%	184	18.7%	6	35.3%
Extensive assistance required	745	49.6%	114	38.4%	84	55.3%	25	48.1%	514	52.3%	8	47.1%
Dependent	412	27.4%	83	27.9%	36	23.7%	5	9.6%	285	29.0%	<5	
<b>Residents by level of aggressive behaviour**</b>												
No signs of aggressive behaviour	841	56.0%	180	60.6%	69	45.4%	29	55.8%	549	55.8%	14	82.4%
Some signs of aggressive behaviour	323	21.5%	56	18.9%	36	23.7%	15	28.8%	216	22.0%	0	0.0%
Moderate to severe aggressive behaviour	239	15.9%	48	16.2%	32	21.1%	8	15.4%	150	15.3%	<5	
Very severe aggressive behaviour	97	6.5%	13	4.4%	15	9.9%	0	0.0%	68	6.9%	<5	
<b>Cognitive impairment categories **</b>												
Relatively intact	241	16.1%	46	15.5%	9	5.9%	15	28.8%	161	16.4%	10	58.8%
Mild impairment	727	48.4%	184	62.0%	48	31.6%	20	38.5%	473	48.1%	<5	
Severe impairment	533	35.5%	67	22.6%	95	62.5%	17	32.7%	349	35.5%	5	29.4%

	North West		1401		1402		1403		1404		1405	
			District of Kenora		District of Rainy River		District of Thunder Bay		City of Thunder Bay		Northern	
Characteristics of long-term care home residents, by sub-region of home (2016/17)	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %	#	Rate or %
<b>RUG categories **</b>												
1 Extensive Services	39	2.6%	<5		13	8.6%	<5		20	2.0%	0	0.0%
2 Special Rehabilitation	41	2.7%	8	2.7%	<5		<5		28	2.8%	0	0.0%
3 Special Care	154	10.3%	19	6.4%	16	10.5%	<5		115	11.7%	<5	
4 Clinically Complex	302	20.1%	55	18.5%	37	24.3%	12	23.1%	190	19.3%	8	47.1%
5 Impaired Cognition	251	16.7%	64	21.5%	22	14.5%	16	30.8%	148	15.1%	<5	
6 Behavioural Problems	28	1.9%	8	2.7%	<5		0	0.0%	18	1.8%	<5	
7 Reduced Physical Functions	686	45.7%	139	46.8%	59	38.8%	19	36.5%	464	47.2%	5	29.4%
<b>Residents with Dementia**</b>	<b>1,005</b>	<b>67.0%</b>	<b>186</b>	<b>62.6%</b>	<b>93</b>	<b>61.2%</b>	<b>33</b>	<b>63.5%</b>	<b>684</b>	<b>69.6%</b>	<b>9</b>	<b>52.9%</b>

\* Rate or % column shows the rate per 1,000 population age 75+

\*\* Rate or % column shows percentage of active LTC residents

